

Mr. J. Paul Rouse

JUNE

1957

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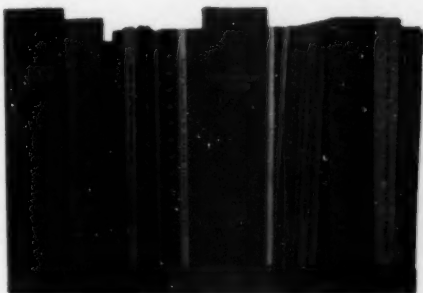
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THE MANAGEMENT REVIEW

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The Coming Push for a Four-Day Week

DESPITE all the time lopped off the U.S. work week in the past 100 years, the millennium has by no means been reached. In fact, where "a chicken in every pot" was the pre-Depression goal, "more leisure time" has become the motto of the postwar boom.

At the United Auto Workers' annual convention, Walter Reuther gave notice to the auto industry that a shorter work week will be the key issue in next year's contract negotiations. Actually, there is nothing startlingly new about Reuther's ideas. Millions of office, garment, rubber, and printing workers already work a short week, ranging from 35 to 37½ hours; some 17 per cent of all workers in the nation's major industrial centers work less than 40 hours.

Yet the very fact that the UAW, established pacemaker on the U.S. labor scene, has focused on the short week gives the issue importance and immediacy; whatever Reuther might ask for, the idea of a four-day week for U.S. labor suddenly seems less like a Utopian slogan and more like an item in a contract. And there are others ready to follow Reuther's pace, as labor followed on the GAW issue. The International Union of Electrical Workers and the International Association of Machinists listed the shorter work week as a major objective in last year's conventions. The United Steelworkers, who must wait until

1959 before their next contract talks, are juggling three alternatives to cut work time: (1) a four-day week, (2) a five-day week of six-hour days, and (3) a three-month vacation every five years.

At a special conference on the short week last fall, AFL-CIO president George Meany said: "It is quite obvious that if automation is going to displace human labor . . . two things . . . must happen to keep this economy going. One is that hours of work must be shortened and the other is that purchasing power must be maintained. They can produce engine blocks by push-button, but they can't produce consumers by push-button."

In these words, Meany sums up the central argument labor advances to support its cause. The year-by-year rise in U.S. productivity simply means that U.S. workers are taking less time to produce the same quantity of goods. So why not, runs the argument, give at least part of this extra time to the worker? The catch is, of course, that wage rates would have to be adjusted to prevent loss of pay.

Reuther claims the shorter work week would provide more jobs in the auto industry, where periodic lay-offs are traditional and the effects of automation in reducing jobs may be direct and painful (even if temporary). But is the short week what Reuther really wants? Actually, there

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is good evidence that he and other major labor spokesmen are interested less in added leisure time or in job security than in getting more money for workers through overtime for the "fifth day." As George Brooks, paper workers' union official, puts it: "Workers are eager to increase their income, not to work fewer hours."

Whatever its motives, labor is certain to run into heavy opposition. Few business men would support labor's argument that work hours should be shortened to offset unemployment from automation. "That," says a Chicago paint executive, "is just looking under the bed for bogeymen." Even fewer could cotton to the Reuther-Meany theory that labor's slice of the pie should be fattened just to create a supply of better-heeled consumers.

Yet there is practically no controversy over the basic idea that a shorter standard work week, perhaps a four-day week or less, is inevitable and desirable. It is how fast it should come and how it should be accomplished that will produce heated arguments at the bargaining tables in the years ahead.

In management's view, the rate of shrinkage in the work week should be based mainly on the rate of increase in productivity. What is the rate? Grover Ensley, staff director of Congress's Joint Economic Committee, gives one estimate: Adjusting for a rising population, U.S. workers will

probably be able to work 200 fewer hours a year in 1965 and, at the same time, maintain 1956 living standards.

But what about improving the standard of living? As Ensley puts it: "What has to be decided is how to distribute the 200 hours between more leisure and more goods."

There is ample room for debate on this decision. If productivity continues its present rate of climb for 100 years and the gains are all converted into leisure, one economist estimates, the work week would be only two hours—but the standard of living would be only a fraction of what it is today. Just cutting the average work week by seven hours, another economist figures, would lop \$100 billion off the projected 1970 gross national product.

To many business men, who assume that everyone, including labor, wants a steadily rising standard of living, the nation is already close to the sensible limit of leisure time. "All the population figures we have studied," says Inland Steel vice president William Caples, "indicate that we will still be short two million (working) people in 1975 even if the work week continues as it is. It seems to me that the real fear should be whether our technology can keep pace with the demands on it—not whether the work week will be shorter."

■ NEWSWEEK, April 22, 1957,
p. 87:3.

YOU CANNOT TEACH a man anything; you can only help him to find it within himself.

—Galileo

Why Executives Leave Home: The Big Boom in Business Travel

NEARLY EVERY MONDAY MORNING at the Louisville airport, a youngish executive steps on a plane. Most weeks he doesn't see home or office again until Thursday night. Almost 60 per cent of his life is spent in alien cities, airplanes, cabs, commercial hotels. He's married but probably has less female company than the ordinary earthbound bachelor.

In many ways he is typical of the nomadic executives who go forth daily from corporation offices all over the country. For these men, travel is neither exciting nor adventurous—it's just another way to live.

Constant executive travel—around the country and around the world—is a phenomenon of the postwar era, almost of the past five years. The need for executive travel—for face-to-face business—has always existed. But in prewar days, when a business trip from, say, Denver to New York killed at least a week, travel was avoided because it took too much time. Now 300-mile-an-hour planes have cut the time element—and, as a consequence, executives spend more time than ever away from home base. Here are some indicators of the travel trend:

❖ In 1945, an aircraft company paid out \$35,000 in travel costs for executives. Its 1955 bill was \$1.3 million—or 37 times as much.

❖ A major oil company says its executive travel doubled from 1936 to 1946, doubled again

by 1951, more than doubled since 1951.

❖ Five years ago, fewer than a dozen corporate planes were hangared at the Omaha airport. In 1955 there were 48, and currently there are 100, ranging in size up to a DC-3.

The reasons for the growth in executive travel are manifold—and go far beyond the mere over-all increase in business. Says a contractor: "Not too long ago, you put a good superintendent in charge of a distant contract and let him run the show. Today the business has gotten too big, too complex, too competitive. It takes constant shuttling by the specialists—safety men, labor relations experts, purchasing agent, tax experts, attorneys, technicians—to keep things going."

A financial vice president notes how his job has changed in six years. "I used to be desk-bound most of the time. Today, though, we find it advisable to appear at meetings of financial analysts all over the country, to pay visits to our large stockholders, and to see our money sources regularly."

Decentralization adds another reason; it multiplies the number of governmental and regulatory bodies—both state and national—that have to be dealt with. And more and more, when it comes to dealing with major suppliers and customers, top brass takes over instead of leaving the job to sales forces.

To find out how all this movement affects the individuals concerned—both in their jobs and their personal lives—*Business Week* interviewed corporate executives across the country. Here's the picture that emerged:

The average corporate official spends about one-third of his total time away from office and home; for upper echelon people, the figure sometimes goes as high as 60 per cent. "It used to be you could tell a man's importance by how much he was bound to his desk," wryly said the vice president of a large insurance company. "Today it's judged by how much he's away."

Many executives complain that all this travel spreads them too thin. Their "regular" duties could easily fill all their time, they lament, and the travel is an "extra" duty superimposed on everything else. One man blames the airplane for the situation, calling it a curse that has made it too easy "for an exec to jump around madly."

Although most travel is by commercial liner, more and more companies are buying their own planes. Normally, the corporate plane is reserved for the brass—although, if seats are available, lesser lights are allowed to fill them.

The splurge in travel has brought some worries, too. Every now and then an accident claims the lives of executives traveling in groups—and there's a rash of talk about putting restrictions on travel. Although considerably less than half the companies checked by *Business Week* have established any policies on this point, there's a definite trend toward limiting the number of key people who can travel together. An extreme case is the rigid rule of an Ohio capital goods producer that not more than two or three top management men can ever travel together—whether by plane, ship, auto, train, or even on elevators in tall buildings.

Frequent absence from home tends to put strains on the domestic lives of traveling executives. In a few cases, serious marital rifts have developed. The biggest problem, though, concerns the children. A wide-ranging business man says unhappily that he's seen so little of his son in recent years that a definite coldness is growing between them. Another had to fight rumors of domestic discord when his children started spreading the word that "Father doesn't live with us any more."

■ BUSINESS WEEK,
January 26, 1957,
p. 133:6.

WHO PAYS THE MOVING BILL when a salesman is shifted from one territory to another? The company usually does, according to a survey conducted by the Cornell Marketing Management Forum. Of the responding companies, 88 per cent pay the full cost of shipping his furniture; the rest either pay a just share or set a limit. As for personal expenses, 35 per cent pay the entire amount; the rest set a limit on the amount they will pay or on the time period for finding suitable housing.

—Sales Management 11/2/56

Executive Suite

HIGH ABOVE THE CITY, in the opulent eyrie he modestly calls on office, the business executive of film and fiction does his skullwork amid trappings that would make Cleopatra's barge look like an excursion steamer. But in real life, the Executive Furniture Guild has disclosed, the average executive suite is a dump. In a survey of 1,000 executive offices in more than 40 U.S. and Canadian cities, the Guild found that the typical layout is "about as inviting as the inside of a boxcar, features drab beige throughout, vinyl tile floor, Venetian-blind tapes of a too-dark shade of brown. The massive oak furniture is awkward, outmoded, and impractical. No draperies. Several unimportant pictures hang from the wall as if they had landed there by accident. Desk accessories coordinate with nothing. About the best that can be said is that it is clean and the furniture is in good repair."

Less than half the offices were carpeted. In 58 per cent "unattractive exposed elements" (meaning heating fixtures) are visible. In 72 per cent of the offices, sniffs the report, cramped interiors do not even suggest the "acumen" or "importance" of the executive. Probable reason: In two-thirds of the offices, the decor (or lack of it) was perpetrated by secretaries, wives, friends, and "other well-meaning nonprofessionals."

—Time Vol. 68 No. 20

New High in Health Insurance Payments

BENEFIT PAYMENTS by insurance companies to Americans protected by health insurance policies rose to over \$2.1 billion last year, according to the Health Insurance Institute. This was an increase of 18.5 per cent over 1955 payments.

Benefits paid under group health insurance policies covering hospital, surgical, and medical care and loss of income were \$1.5 billion, an increase of 20.9 per cent over the previous year, while the increase in benefits under individual health insurance policies was over \$601 million, a rise of 12.8 per cent.

Persons covered under hospital expense policies received a total of \$855 million, with \$629 million received under group policies and \$226 million through individual policies. Surgical expense insurance accounted for over \$346 million in benefits payments, with \$273 million going to those protected under group policies and \$73 million to individual policyholders.

Payments to persons under medical expense policies amounted to over \$58 million, with \$47 million paid under group plans and \$11 million through individual policies. Major medical expense insurance paid holders a total of \$65 million, with group policy holders receiving over \$62 million and holders of individual policies receiving \$3 million.

—The Journal of Commerce 3/1/57

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College Recruiting: A Survey of Company Programs

INDUSTRY'S DEMAND for college graduates in nontechnical fields has jumped almost as sharply this year as its need for engineering graduates, according to a survey of company policies in employing college graduates recently completed by Frank S. Endicott, Director of Placement, Northwestern University (Evanston, Ill.). The responding companies will seek 30 per cent more graduates for nontechnical jobs than last year, almost matching the 35 per cent increase in the demand for men with engineering and technical training.

The survey, published by the Dartnell Corp., covered 200 representative companies which actively seek college graduates by sending recruiters to various campuses and maintaining close contacts with placement directors. The reporting companies made a total of 8,989 campus contacts last year, an average of 45 schools per company. This year they plan an average of 52 school contacts per company. Only 25 companies will make fewer than 10 contacts, while 34 will each approach more than 100 schools. Of the responding companies, 111 expect to make contacts with more colleges this year, 56 plan the same number, and 28 plan to make fewer contacts.

The reporting companies, which hired 7,419 engineering personnel through campus recruiting last year, seek 10,120 this year. They plan to hire 12,591 nontechnical personnel,

compared with the 9,766 they hired last year. Much of this increase is in the sales field, where the requirements have gone up from 2,065 to 3,809.

The demand for women graduates has also risen this year. The responding firms, which hired 964 women graduates last year, expect to hire 1,128 this year. About one-third of the companies actively recruit college women through campus visits, while many other companies which employ college women report that they are able to meet requirements from direct applicants.

Starting salaries have gone up along with the demand. For engineers, the average starting salary will be \$433 as compared with \$415 last year; for accountants, \$389 as compared with \$372; for salesmen, \$385 as compared with \$370; for general business trainees, \$382 as compared with \$363; and for other fields, \$414 as compared with \$394. The average starting salary for these combined fields will be \$401, an increase of \$18 over last year's average starting salary of \$383.

Many companies found it necessary last year to raise their starting salary rates after the interviewing season had begun. However, the increased rates did not help the companies to meet their needs, particularly in the engineering field. Of 81 companies which raised their starting rates for engineers, only 10 filled their needs;

of the 62 which did not raise their rates, 20 met their needs.

The survey sheds some interesting light on the relative income progress made by college graduates in different fields. Figures provided by the responding companies on college men hired in previous years show that engineers, though they start out at higher salaries than men in other fields, tend to fall behind as the years go by. After 10 years, salesmen in the reporting companies were averaging \$826 a month, while engineers were making \$740. Accountants and general business personnel also drew ahead of engineers as service lengthened.

According to replies by 190 of the responding companies, liberal arts graduates could have qualified for

about 37 per cent of all jobs for which college graduates were hired last year. Though only 27 per cent of those hired *were* liberal arts graduates, half the companies indicated that they hired about as many such men as were qualified.

Asked to check factors which make college recruiting difficult, reporting companies most frequently complained that the number of college graduates was too small. Other factors named most often were: (1) college professors need a better understanding of our type of business; (2) the quality of many applicants is below our standard; (3) the company is not well known on college campuses; and (4) too many graduates have not decided what they want to do.

The Salesman Who Never Sleeps

AUTOMATIC MERCHANDISING today is a relatively small business—estimated 1956 sales of \$2 billion are only a little over 1 per cent of total retail sales volume—but it is currently the fastest-growing method of retail distribution. And it promises to revolutionize the entire pattern of retailing.

Three products—cigarettes, candy, and soft drinks—account for more than 75 per cent of automatic vending sales. But the growth potential of the industry lies in two fields that automatic merchandising is just beginning to explore: in-plant feeding and take-home retail sales.

The industrial cafeteria has long

been a management headache. In plants operating three shifts, it is often impractical to keep the cafeteria open during the evening. In most cases, a management subsidy is necessary. And time spent going through the cafeteria line is considerable.

With vending machines supplementing—and in some cases replacing—the industrial cafeteria, many of these headaches are removed. Whether the plant is on one shift or three makes no difference to the mechanical merchant. The vending operator gets no subsidy; instead, he pays a commission on gross receipts, which generally goes to the em-

employees' welfare or recreation fund. Instead of walking through the plant to get in line at the cafeteria, the employee can often go to a battery of vending machines near his work area and get his meal almost immediately.

Currently, the variety of foods available in vending machines compares favorably with that offered by the industrial cafeteria. It is possible to buy hot canned foods, soups, pastries, hot and cold sandwiches, milk, coffee, and soft drinks.

This does not mean that automatic feeding will replace the cafeteria on a wholesale basis. It does mean, though, that industrial caterers will depend heavily on vending machines to supplement their cafeteria operations, and where the cafeteria volume is such that it requires too large a subsidy, automatic merchandisers will be substituted.

If the cafeteria presents problems to the factory manager, the coffee break is often the bane of the office manager's existence. While no official figures are available, it is estimated that about 35 million workers take at least one coffee break a day, and American industry pays for these coffee breaks to the tune of millions of dollars a year in lost man-hours.

The 10-minute trip to the downstairs drug store often lasts half an hour. The thundering herd that converges on the elevators at midmorning and midafternoon can disrupt the office routine. These problems can be eliminated by vending machines, which make coffee available at all hours, at no cost to management and with a minimum time loss to employees.

Coffee vending is still in its infancy. Machines vending soluble coffee were first mass-produced in 1953, when 25,900 units were placed in factories, offices, and transient locations. Industry estimates for 1956 put the figure at nearly 75,000.

Until now, automatic merchandising has been limited primarily to impulse items for on-the-premises consumption. But, with the cost of sales labor at an all-time high, and with automation in distribution failing to keep pace with automation in production, vending experts are beginning to think in terms of planned purchasing through machines.

Milk vending machines, for example, are currently being placed in apartment houses and at filling stations. Cost of delivering a quart of milk to a vending machine that holds up to 200 quarts is about two cents, or six cents less than the cost of delivering it to the doorstep.

Supermarkets are eyeing the development of milk vending and are mapping plans to dispense grocery staples automatically. Of the 168 hours in a week, these stores are capable of producing revenue only during the 54 hours they are open. Vending machines could make the remaining 114 hours productive, with a minimum increase in labor costs.

The automatic supermarket became a reality last year, when a leading East Coast chain installed a battery of eight vending machines in the wall of its East Paterson, N. J., store. These refrigerated machines now vend such grocery staples as

bread, butter, milk, packaged meats, cheeses, various kinds of canned goods, and eggs.

Not even the most ardent supporters of automatic merchandising claim that this method of distribution will replace the salesman. The vending machine hasn't been built that will persuade an unwilling customer to buy. All a vending machine can do is make available a product which the customer already wants.

Obstacles to the growth of vending are not primarily mechanical. It is possible to build machines to vend neckties, shirts, and trousers. But the consumer wants to feel, try on, or perhaps return these items. He wants a sales clerk, not a machine. Another limitation is the volume potential. Unless the item vended is suited for

mass sales, the tooling and production expense to make the vending machine is wasted effort. For this reason, vending is likely to be confined largely to products priced at less than \$1.

Within these limitations, though, the automatic merchandising industry has a potential of at least \$10 billion annually—a potential it can reach in the next decade. The vending machine is distribution's version of automation: a salesman who works 24 hours a day, seven days a week; a salesman who doesn't require Social Security, fringe benefits, or paid vacations—a salesman who never sleeps.

■ Aaron Sternfield.
DUN'S REVIEW AND MODERN
INDUSTRY, February, 1957,
p. 54:7.

Training Schools for Customers' Technicians

TO MEET THE GROWING SHORTAGE of skilled technical personnel, the makers of automation equipment are training almost 100,000 of their customers' technicians each year. The need for trained men to back up engineers in the installation, maintenance, and operation of new control systems will be even greater this year than last, since sales of automation machinery are expected to total more than \$4 billion during 1957.

Although most of the 2,000-odd companies manufacturing specialized products for the control field provide informal in-plant instruction for their customers, a growing trend is toward organized training schools. In response to a recent survey conducted by *Control Engineering* magazine, 33 manufacturers report that they are teaching approximately 8,000 technicians each year in their training courses. (This does not include IBM, whose "mobile" program handles 70,000 annually.) At least 12 of these schools do not require that their students be customers, and all but three are tuition free.

Most manufacturers staff their schools with graduate engineers, many of whom are trained to teach. The courses, which run from two days to 14 weeks, are heavily attended, and more than half reach full enrollment long before classes start.

—*Industrial Relations News* (230 West 41
Street, New York 36, N.Y.) 1/5/57

Building a Sound Committee Management Program

WHEN A COMPANY decides to depend on people working in committees for efficient management, there are a number of obstacles to be overcome before the system can be successful. Naturally, you're not going to get polished performers at the beginning of a committee management program. First, many of the people involved won't be trained to assume management responsibilities. And, more serious, they often can't communicate on a management level.

At Standard Register Co., we improve communication ability by putting every executive, department head, and supervisor (including assistant foremen) through a training program in public speaking and conference leadership. This program teaches the men to express themselves clearly to groups of their fellow-workers.

Management thinking is developed, so that the talking doesn't become a matter of parroting borrowed phrases. Each man goes through a 15-session course in conference leadership which gives him a chance to work out logical approaches to problems in cooperation with his associates. Each session is professionally led at the beginning, and deals with a factory topic that members know something about. After getting the session started, the leader turns it over to one of the group members, who acts as chairman for the duration of the meeting. Detailed records are kept

of each man's participation—the number of times he enters into discussion, nature of his contribution, whom he addresses, etc. If a member seems to be carrying less than his share of the discussion, steps are taken to draw him out.

When committees are formed, we make sure that the chairman of each is also a member of the committee directly above. This overlapping runs from the lowest to highest level and gives each member a look at what is happening above and below. It also insures a constant flow of information in both directions.

As the key to our committee program, we have established a Factory Management Council composed of factory department heads. Below this are departmental committees which include persons down to the assistant foreman level. Meetings of the Factory Management Council are split in two sections, so that a supervisory force is always available in the plant.

All meetings and training courses are held during working hours. We regard this as productive time well spent, and it has improved both our productivity and product quality.

The benefits from committee management are many. As an example, consider time study and work simplification. Since committee members discussing these subjects are actually doing the jobs, any change in procedure or equipment is fully under-

stood beforehand, and there is no danger of the resentment that sometimes is aroused when a man with a stopwatch appears out of nowhere. Many union representatives participate in these group meetings, and we have the finest relations with the nine different unions with which we have contracts.

One of our most important project committees is the Boost Sales Committee, which comprises two groups—one in the factory and one in the office—with six or seven members in each group. The members work with the Special Activities Depart-

ment to design posters, plan slogan contests, and generally to maintain contact between sales and operating departments. Quality-control boards around the plant are slanted toward sales-consciousness, and illustrations of competitive products make workers aware of the race we are in. In addition, letters of thanks from salesmen in the field are posted to show production workers the importance of their role.

■ M. A. Spayd (*President, Standard Register Co.*),
MILL & FACTORY, April, 1957,
p. 124:2.

Tips on Controlling Starting Costs

TODAY'S GROWING COMPLEXITY of design and greater emphasis on changes in major functional components have meant sharp increases in the abnormal costs involved in switching to a new product design. Thorough planning and preparation, however, can control and minimize such costs.

If major product changes have been infrequent, a detailed analysis of the staff and the strength of the organization should be made early in the program. Even in the company that does possess facility in assimilating changes, an analysis of the organizational components should be undertaken if the contemplated change is substantially greater in scope than previous changes.

Following this analysis, the anticipated cost of the program should be

determined. For purposes of analysis and control, these nonrecurring costs may be segregated into the following two groups:

1. The costs of additional staff personnel required to plan the job, as well as expenses associated with the planning, may be classified as preproduction expenses.

2. Costs in excess of normal operating levels which are incurred from the start of production until the normal cost levels are attained may be classified as launching costs.

It is vitally important that preproduction costs be isolated so that proper cost-reduction action may be taken when the planning program is complete. It is also most important to remember that preproduction costs will be incurred even though economy-minded people decide that the

planning job can be done by the existing staff. An attempt to do the planning work with people from departments which have not been adequately staffed to perform the extra tasks can only result in poor planning or deterioration of existing operations through deprivation of normal services.

A planning and expediting group should be established to develop a detailed schedule for each segment of the operation. Even if certain physical aspects of the change have not yet been defined, a detailed plan should be prepared at the earliest possible moment and then modified as changing conditions dictate. This will permit the adjustment of other phases of the planning program for changes which inevitably affect the over-all plan. A detailed schedule for the release of building areas, the delivery and installation of each machine, the establishment of stocks of stores in service areas, etc., should be planned in advance.

A process-engineering group should be set up to develop production processes. Plant layout, purchasing, and other service organizations should be established and coordinated into the master plan by the planning and expediting group.

The next step is the preparation of a preproduction budget. The budget should be broken down by months to reflect the necessary build-up in organization, and should also include provisions for any major programs planned for development of machines and tools.

In any major change, there may be modification of existing machines or the purchase of new machines. If

possible, the new machines should be given a production-type tryout at the vendor's plant prior to shipment. This tryout should not be limited to production of a few parts but should include a full eight-hour production run. In this way, machine faults can be detected in time to obtain corrective action at the vendor's plant, where the necessary facilities are available.

To be effective, the machine tryout program must be carefully planned. It will be essential to provide a large quantity of parts well before normal production is due. In addition, it will be necessary to arrange the flow of parts through the machine vendors' hands so that normal operational sequences are followed.

Another profitable step that can be taken a few months before production starts is the establishment of a pilot line to test the in-line functioning of each machine and its related automation.

Although the costs of an adequate vendor tryout program and pilot line may appear excessive, the results, in terms of smoothly functioning machines and equipment, will help keep launching costs to a minimum. For example, one large transfer machine containing 18 working stations, 25 heads, 107 limit switches, 130 solenoids and 288 relays must have all of these items operating in perfect relationship if the machine is to achieve its planned productivity level and produce parts in accordance with specifications.

■ *Forrest L. Heuser.*
N.A.C.A. BULLETIN,
April, 1957,
p. 1047:6.

Do Your Engineers Feel Neglected?

EFFORTS TO WOO ENGINEERS with salaries, scenery and security do not always end up blissfully, according to the findings of a recent survey of 811 engineers—employed by chemical, aviation, oil, electrical and other companies—reported by Hugh L. Rusch, vice president of Opinion Research Corp. While salesmen and production men scrimmage for top spots on the management team, many engineers feel they are perpetually benched, their professional advice unheeded. Result: Their discontents are multiplying.

In times when so much is made of a dire engineering shortage, it is notable that the engineers' most frequent gripe, made by 77 per cent of those interviewed, was that they were loaded with routine, undemanding work. In more than one company, says Mr. Rusch, engineers are being "stockpiled."

Engineers have found little solace in the fact that their salaries have risen in recent years, according to the survey. Compared with other professional talent, the majority of those polled felt they were still underpaid.

—Newsweek 3/18/57



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Who's to Blame for Higher Prices?

CURRENT ECONOMIC FOLKLORE offers two explanations for recent rises in the price level:

1. That the only reason prices were stable from 1952 to 1956 was that food prices were down while industrial prices were up.

2. That the reason for the reputedly steady rise in the price of things other than food is that labor unions push up wages and big corporations push up prices.

Examination of the item-by-item details of the government's cost-of-living figures discloses that the first popular belief has no validity at all and the second has validity, if at all, only in a remote sense.

Prices of goods—things other than food—are, on the average, no higher today than they were four years ago. Retail prices of manufactured goods as a whole were falling, not rising, from 1952 through 1955. They did rise, by a little, last year.

The price of food, despite a 3 per cent rise last year, is still a shade lower than it was at the end of 1952.

The real villains—the prices that actually have been going up all along—are the prices of “non-goods.” This term covers services, public transportation, rent and utilities.

And the key point about these areas is that, for the most part, there simply is no big problem of a union and no larger corporation.

Over the entire range of non-goods priced by the government, only a single one—the cost of automobile insurance—has declined in the past

four years. The list of increases is almost endless:

- ☛ Auto repairs—up 15 per cent.
- ☛ Rail, bus and rapid transit fares—up 20 per cent.
- ☛ Medical care—up 15 per cent.
- ☛ Laundry—up 11 per cent.
- ☛ Haircuts—up 14 per cent.
- ☛ Local water rates—up 35 per cent.
- ☛ Movie admissions—up 20 per cent.
- ☛ Gas and electricity—up 6 per cent.
- ☛ Radio-TV repairs—up 25 per cent.
- ☛ Rent—up 12 per cent.
- ☛ Mortgage interest—up 30 per cent.

How much do all of these “non-things” account for in the average family's cost of living? By the government's reckoning they come to about one-third, or far more than is generally realized.

What conclusions can be drawn from these facts?

The first is that the big-union, big-corporation argument has very little direct relevance to the cost of living of the average family.

The second conclusion is really a question. Why have the prices of non-goods risen so much and so steadily (they have gone up every year since 1942)?

There are no certain answers, but the government's experts generally cite two theories.

The first is that these prices are still catching up to the precipitous

increases in the price of goods, both food and non-food, between 1945 and 1952. If this theory is generally correct, then, perhaps we can expect an end to the spiral some day, when the catching-up process is complete.

The other theory is more technical and less comforting.

It holds that in the non-goods area as a whole, capital investment and new machinery cannot greatly improve the productivity of labor, or at best can improve it far less than in manufacturing. But these areas, at a time of full employment, must pay

wages at approximately the prevailing rate to keep workers. Thus costs and prices must rise.

If this second theory is valid, it indicates that the real reason for the recent creeping rise in the cost of living has to do with changing patterns of consumption. With a standard of living like America's, this changing pattern brings non-goods into major prominence in the cost of living.

■ Edwin L. Dale, Jr.
THE NEW YORK TIMES,
March 10, 1957, p. 1:2.

How Management and Labor View Political Issues: A Survey

FORMERLY FAR APART politically, management and labor now think pretty much alike on major issues of foreign and domestic policy, according to a poll conducted by the Survey Research Center, University of Michigan.

The findings of the survey show that both business men and workers favor Republican foreign policy by about a two-to-one margin. On domestic matters, workers tend to favor the Democratic Party while business men give their nod to Republicans—but the differences are not great.

Business men covered in the survey included a large number of small-business owners, managers, and executives, as well as representatives of large business firms, reflecting the general proportion of these groups in

the population at large. The respondents in the labor group included union and nonunion members among skilled, semiskilled, and unskilled workers.

Both groups agree that "big business" and "labor unions" should not have too much to say about how the federal government is run. By a two-to-one margin, business men feel it's proper for the government to limit big business influence, while the same percentage of workers feel the influence of labor unions in government should be limited.

Better than half the nation's workers believe the government should see to it that everyone who wants to work can find a job and should also help people get medical and hospital care at low cost. Although this senti-

ment is not quite so strong among business men, a majority of those with opinions think the government should be concerned with these matters.

Both business and labor believe—by more than a two-to-one majority—the government should see that Negroes get fair treatment in jobs and housing. However, both groups split down the middle on whether or not the government should have an active role in school integration.

Warren Miller, assistant professor of political science at the University of Michigan, who directed the study, believes the lack of sharp political differences between business men and workers may be attributed to widespread satisfaction with the present

state of the nation and the middle-of-the-road position adopted by major leaders of both political parties in Washington.

"This probably reflects a lack of any great concern with these issues, rather than a shift of opinion by either business or labor," he comments. "The general economic prosperity of the nation tends to soften differences in popular opinion."

Results of the Center's study of the 1956 national elections indicate that about one-third of the U.S. adult population sees no major differences between the two political parties on any given issue. And only a tiny proportion—about 1 per cent—follow their party "down the line" on all of the 16 major issues studied.

Work-Study Programs—Relief for Clerical Labor Shortages?

A PRACTICAL, SUPERVISED WORK PROGRAM for senior high school students is helping one company (Abbott Laboratories, North Chicago, Ill.) to solve its clerical labor shortage. The students who participate—usually girls studying typing, bookkeeping, and other clerical subjects—take the work-study training in addition to their regular courses and receive an extra credit for every year of satisfactory service.

Members of the work-study groups spend 18 weeks per semester at work—five days a week, from 1:30 to 4:55 P.M. During that time, each student works in at least two closely related departments of the company, receiving the standard wages for her job classification. Every six weeks, department supervisors make a special report on each student; this is sent to the school, so teachers and guidance counselors can work out any difficulties or shortcomings that are uncovered.

In addition to helping to ease the tight labor situation, the company reports, approximately 90 per cent of the students return after graduation, becoming valuable additions to the permanent work force. Moreover, the program has sharply reduced the amount of training necessary to assure the company of competent, promotable clerical employees.

—*Management Methods* Vol. 11 No. 2

The Pinch in Profit Margins

THE GROWING SQUEEZE on profit margins is fast becoming a vital business problem: More and more corporations find that labor and material costs are outracing their ability to improve efficiency and productivity—or to raise their own prices.

The squeeze is clearly shown in a *Wall Street Journal* survey of corporate earnings: 204 of the largest U.S. companies boosted sales from \$86 billion in 1955 to \$89 billion last year, but the group's profit fell from more than \$6.5 billion to less than \$6 billion. Thus the average profit margin was trimmed from over 7½ per cent to about 6½ per cent.

In another survey, the Federal Reserve Board reports the net profit margins for 200 large manufacturing corporations declined from just under 8 per cent in the fourth quarter of 1955 to less than 6 per cent in the third quarter of last year. This is only about 1 per cent above the low of the 1952-1953 recession and considerably below the 10.5 per cent high of 1950.

So far, the tightening of profit margins has not spread to all segments of the economy or even to every company in a particular industry. By and large, the hardest-hit companies operate in fields where they have been unable to pass cost increases along to customers. On the other hand, a number of industries have been able to better their profit picture.

To some extent, the latest profit squeeze may mark the end of the sell-

er's market and a readjustment after the unusually plump margins (by recent standards) of 1955, which were brought about by the unprecedented national boom. But as one corporation executive points out: "If we lose a fraction of our profit margin each quarter, it won't be more than a few years before we're out of business."

The profit problem can be traced to one important fact: It is getting more and more expensive to do business. Between 1955 and 1956, wholesale prices charged by industry rose only 2.8 per cent. At the same time, many companies signed new labor contracts which provided for substantial hikes in wage rates in 1956. And as the cost of living moved up 3 per cent to an all-time high, escalator clauses in existing contracts called for further increases. All in all, hourly wage rates (including fringe benefits) rose 5.3 per cent, while productivity did not increase sufficiently to compensate for the additional labor cost. And the full impact has not yet been felt; contracts already in force call for hikes of anywhere from 6 to 11 cents an hour for 4.5 million workers this year.

Last year also brought price rises in many basic raw materials. Over-all, prices paid for materials and supplies rose a substantial 4.7 per cent from 1955 to 1956. And further increases in the prices of steel and other raw materials are expected this year. Transportation, too, became more expensive. In 1956 the railroads upped freight rates 10.5 per cent, and an-

other increase has now been requested.

Costs of new machinery and tools mounted 7 per cent in 1956, while costs of industrial construction increased 4.4 per cent. This higher price tag on improvement and modernization in many cases blocked one of the classic remedies for profit squeezes: more efficient plants and machinery. Although some companies are still willing to push ahead on new plants and equipment, more and more corporations are announcing cutbacks, stretch-outs, or outright cancellation of expansion plans.

The other classic antidote to compressed profit margins is a price increase. However, even bigger obstacles currently block this solution. Industries such as paper, textiles, and, in some areas, chemicals are already troubled by overcapacity. Any hike in selling prices could set volume tumbling low enough to slash existing margins drastically. And even where there is no serious threat of oversupply, manufacturers and retailers report buyers are definitely in the driver's seat.

As a result, industry will be doing some belt-tightening which will have definite effects on the whole economy. Capital expenditures, which have risen at a dizzy pace, are due to level off by the second half of 1957. The Commerce Department and the SEC report that industry plans to spend about \$37.4 billion on new facilities this year, as against \$35.1 billion in 1956. However, the 1957 figure is only 6 per cent higher than last year's, which was a hefty 22 per cent over

1955. Moreover, the 1957 increase is mostly expected in the first half of the year, with second half outlays due to just match those of the first half.

The pinch in profits will make corporations redouble their efforts to squeeze all possible fat out of their operations. Many companies have dropped unprofitable lines or divisions to improve their over-all margins, and other companies are sure to follow. And despite the high cost of new facilities, there will be further automation to bring wage costs and productivity more closely into line. Small companies, which feel the squeeze more severely, may seek safety through mergers and consolidations.

In any event, the profit pinch is something business may have to live with for some time. And in some respects it might even be viewed as something of a healthy omen. The tightening caused by price resistance may be one of the first over-all effects of the government's attempt to check inflation. Cutbacks in capital expenditures and inventories could put a lid on rising prices for vital raw materials. And unless margins take a nose dive most companies should be able to operate comfortably, if not happily. Meanwhile, other booming influences on the national economy—growth in population, disposable income, continued high government spending—should provide a sturdy prop against any serious recession.

■ INVESTOR'S READER,
April 17, 1957,
p. 16:6.

WHEN A MAN'S KNOWLEDGE is not in order, the more of it he has the greater will be his confusion.

—Herbert Spencer

Laying the Groundwork for Long-Range Planning

ALTHOUGH long-range planning promises to be an increasingly important technique for forward-looking company managements, the habits and traditions of the past are not easily overcome: Down the line, the feeling still persists that planning is the main function of the chairman and the president, and that vice presidents and lower echelons should concentrate on running the company. So it is not enough for top management itself to *awaken* to the need for more formal planning. Someone very near the top must also take the initiative in *pushing* long-range planning of the company-wide kind; otherwise the chances are remote that it will ever be started.

Once the board of directors or the chief executive has committed the company to undertake long-range planning, the most critical decision to be made is how to approach the organizational problem—particularly the question of who is to be responsible for carrying the work through.

To get down to specifics, here is a look at one company's approach to this part of the long-range planning task and an evaluation of its efforts in comparison with those of other companies:

The president of Company A appointed a senior vice president with a background in sales as chairman of a planning committee. With the advice of the president, the chairman selected for the committee six managers from among the immediate sub-

ordinates of the vice presidents: one each from product development, purchasing, staff engineering, research, production, and personnel.

During the months of staff work and meetings, the committee members constantly found it difficult to avoid being sidetracked on studies of urgent operating problems; but under the subtle prodding of the chairman, who tolerated occasional detours, the group made steady progress in assembling a mass of data, interpreting it, and drawing conclusions in terms of specific plans for future expansion.

In addition, the planning committee became a valuable training ground for developing future top executives. The members of the committee, who were already key operating managers, were introduced to the difficult task of planning before being moved into positions where they would have a major responsibility for thinking ahead.

However, the planning committee's work did not always go smoothly. One difficulty growing out of this approach, which centers the planning function below the vice-presidential level, is that at certain stages the committee members may not be fully informed about proposals under consideration by the president and vice presidents. Committee members experienced real frustration when, after weeks of study and discussion, a planning proposal was rendered obsolete by top management's announcement of a move which the

members of the committee did not know was under consideration.

Top executives who anticipate or have experienced the shortcomings of Company A's approach may want to consider different systems. One company that began with a planning committee similar to Company A's, but was discouraged by the difficulty of combining planning and operating responsibilities in the same persons, abandoned this approach in favor of a group whose members were assigned full-time to planning.

This approach has a noteworthy advantage in that a more detailed master plan could be developed sooner. But most chief executives would be horrified at the prospect of having a group of operating managers—at least, if they were good men—taken away from their jobs completely for a very long period of time. This raises the question of what kinds of variations from Company A's approach are possible and practical.

In Company B, which like Company A has a centralized management consisting of functional departments reporting to vice presidents, the president gave his highest-ranking assistant additional duties as a vice president for planning and administration. This vice president became chairman of a 15-man planning committee composed of all the other vice presidents. A subcommittee was appointed for each project which the planning committee decided to investigate. A vice president was always selected as chairman of the subcommittee, which might include other vice presidents as well as company officials who were not members of the planning committee.

As the organization evolved, the top planning committee became a review committee, while the real spadework of collecting and interpreting facts and judgments went on in the subcommittees. The chairman convened the 15-man planning committee only to consider a report by one of its subcommittees. This happened on an average of four times per year.

The prompt and serious attention given to recommendations emanating from the planning activity created an extremely favorable atmosphere. There was never a delay in holding a meeting once the subcommittee was ready to report, and members gave top priority to attendance at these meetings. The president and board of directors responded similarly in taking up recommendations submitted to them. Because of this favorable top-management attitude, the subcommittees encountered little resistance in persuading various members of the company to undertake staff work, some of which was quite extensive.

At the same time, Company B's planning was not as ambitious as Company A's. There was no master plan systematically accounting for the activities of all major company functions for a prescribed period of future years. It might be said, therefore, that Company B sacrificed the long-range potentials of Company A's over-all planning for the shorter-term benefits of a thorough study of projects stemming from immediate problems.

■ H. Edward Wrapp.

HARVARD BUSINESS REVIEW,
January-February, 1957, p. 37:11.

Growing Your Own Foremen: One Company's Program

BECAUSE IT'S BECOMING increasingly difficult to recruit good foremen, Ford Motor Co. (Dearborn, Mich.) is developing a home-grown crop with a well-rounded training program in supervisory responsibilities. The trainee foreman at Ford undergoes an extensive course which includes on-the-job shop experience plus 110 hours of organized instruction given outside of regularly scheduled working time. The trainee attends these sessions two hours a day, two days a week, for a period of about six months.

An interesting aspect of the program is the proportion of instruction time allotted to each of seven basic supervisory responsibilities:

1. *Personnel*: Approximately 30 hours of the trainee's instruction time is devoted to explaining how to handle new employees, train his men, maintain discipline and, in general, handle all personnel problems.

2. *Quality*: The trainee spends nine hours learning how to develop and maintain quality.

3. *Cost*: Learning to develop and meet budgets, and reduce cost in every possible way, takes about 21 hours of the trainee's instruction time.

4. *Production*: Since meeting over-all production schedules is a test of a foreman's ability, the trainee spends six hours learning how to schedule work and manpower.

5. *Use of staff services*: Three hours of training are devoted to acquainting the trainee with staff services and the procedures followed in securing the appropriate service.

6. *Company development*: About 13 hours are devoted to guiding the trainee toward constructive thinking on such varied problems as work simplification, procedures, policies, and practices.

7. *Tools, machines, equipment, and material*: The trainee spends about 18 hours learning how tools, material, machines, and equipment can be utilized most effectively in his department to maintain company standards and keep costs low.

The remaining 10 hours of instruction are devoted to examining the effect of current economic forces on the automotive industry.

—*Employee Relations Bulletin* (National Foremen's Institute, New London, Conn.) 2/6/57

ACCIDENT PREVENTION is a family affair, the Service Pipe Line Co. (Albany, Texas) believes. Recently, it decided to open its monthly safety meetings to the public. Well publicized in advance, the meeting took the form of a "show" in a high school auditorium. Safety skits were acted out by company employees, together with songs and jokes by professional entertainers. The affair was voted a huge success by the entire community.

—Lawrence Stessin in *Mill & Factory*

Executive Vacations: A Survey of Company Policies

A GOOD MANY EXECUTIVES fail to take all the vacation time that is coming to them, judging from a recent *American Business* survey of executive vacation policies. Fifteen per cent of the responding companies said their executives never take all the time to which they are entitled, while 20 per cent said theirs do only occasionally.

A broad breakdown of the survey results shows that:

- ❑ Fifty per cent of companies surveyed have no special vacation policies for executives, who follow the same rules as other employees.
- ❑ Thirty-two per cent liberalize company-wide rules to benefit the executive group.
- ❑ Thirteen per cent have no vacation policies, or allow executives to take whatever time they want.
- ❑ Five per cent have different vacation policies for different executive levels. Sometimes the distinction is between officers and other executives.

A definite trend to longer vacations is shown by the survey. Of the responding companies with clear-cut vacation regulations, 53 per cent give their executives two-week vacations after one year of service; 25 per cent give three weeks after this interval, while 19 per cent give four weeks and 3 per cent only one week. After 10 years of service, the policy is: two weeks, 47 per cent; three weeks, 30 per cent; four weeks, 21 per cent; and one week, 2 per cent. After 15 years: two weeks, 27 per cent; three

weeks, 50 per cent; four weeks, 22 per cent; and one week, 1 per cent. After 25 years: two weeks, 23 per cent; three weeks, 47 per cent; four weeks, 29 per cent; and one week, 1 per cent.

Most companies encourage executives to take vacations longer than two or three days. A few, perhaps because of special circumstances, permit a series of long week ends, but in most companies the feeling is that executives get very little benefit from chopped-up vacation periods. A good many medical authorities are in agreement. It takes a full week or more for the executive to throw off his job tensions and get himself unwound, they say. By the end of the second week, he has learned how to relax, leaving him the remaining one or two weeks to get real benefit from his vacation. The man who takes long week ends or a day or two at a time never does get completely unwound.

The trend to longer vacations is, in a sense, defeating its own purpose as far as executives are concerned, because they have trouble persuading themselves that they can be spared for the three or four weeks they are allowed, and often end up by taking their time in small, unbeneficial doses.

The executives who sometimes or always pass up opportunities to get away for a rest are the ones who give the medical departments their worries. The fault is not entirely the executive's, however. The company must

take some blame if it brings no special pressure to bear on him and allows him to go on working.

Some companies make it a policy to turn over the names of the men who plan to take no vacations to the medical department. A clinical report is passed along to the chief executive officer, possibly with a recommendation that the man in question be required to take time off.

One company has found a way to cure the reluctant executive of his

reluctance. He is called in by the president and told not to show his face in the office for three weeks beginning next Monday. This can be very inconvenient indeed for the executive; the next few days, during which he gets his affairs in order, are hectic ones. But it is most unlikely that he will invite the same experience again next year.

■ AMERICAN BUSINESS,
March, 1957,
p. 254.

Selecting and Installing a High-Speed Computer

WHEN A COMPANY decides to make use of a high-speed computer in its normal data-processing operations, it will find no magic wand to bring about the expected benefits. Here are some of the concrete questions that must be dealt with before such a conversion can be successful in improving efficiency and reducing costs:

Is a competent systems staff available? You must have men who can grasp the broad management viewpoint and also be capable of developing the new system by complete programming from flow chart to machine code.

Is management prepared to accept a new concept in record keeping? There is little relationship between today's automatic factory and the hand processes previously used in production. There must be a willingness to perform the same kind of

drastic surgery on paperwork as has been done on manufacturing processes if costs are to be brought down to a reasonable level.

What will the new system accomplish? This question can be broken down four ways: (1) Will the system reduce costs? (2) Will it produce all required information at the time and in the form desired? (3) Is it flexible, so that sudden changes in company operations can be incorporated with minimum effort? (4) Does it provide a sound basis for future expansion and continued improvement?

On what basis should the hardware be selected? The selection of the proper type of equipment should be based on a study of the equipment's ability to handle all of the proposed applications. For example, the hardware requirements for a payroll ap-

plication may be entirely different from those indicated for an insurance reserve calculation. Therefore, it is not wise to make a decision on the selection of equipment until the basic elements of the proposed system have been fairly well defined and are ready for machine programming. This will permit you to compare the effectiveness of competitive equipment in handling your specific applications.

Here are some of the basic factors to be considered in reaching a decision on the type of computer to be used:

1. It is important for economic reasons to determine as quickly as possible the size of equipment needed, so that the relative merits of competitive equipment can be evaluated.

2. Speed is a primary consideration in the selection of a computer, but it is important only insofar as it actually can be utilized in meeting the requirements of your proposed system. The ultra-high-speed computer is not always practicable in a system which cannot supply input or process the output at a rate sufficient to keep the computer fully utilized.

3. The computer should be versatile enough to accept a variety of input media and provide output at a speed consistent with the system as a whole. In particular, a minimum amount of conversion of data from one media to another is desirable.

4. The various input and output devices which may be used must be examined to make sure that the speed and capacity of each such device is compatible with every other in the proposed applications.

5. It is usually important that the computer be able to transfer data be-

tween input and output without using storage needed for memory, arithmetic, or control purposes. This may be accomplished by means of a high-speed magnetic-core storage unit, which will receive and transfer this type of information without going in and out of the main memory unit.

6. The computer must be sufficiently flexible to permit the attachment of additional input or output devices.

7. The computer should have adequate buffer storage to provide for overlapping between input and output. This factor seriously affects the computer time required for any specific application.

8. Ease of programming is extremely important. This is a time-consuming operation which can materially increase your costs.

9. Reliability, which in practice means maximum accuracy and minimum down-time, is an important consideration.

What are the installation problems? The installation schedule should be determined well in advance of the delivery of the computer, and should include these elements:

1. Selection and training of personnel. Programmers, operators, supervisors, and other necessary personnel should be selected and trained during the preinstallation period.

2. Program testing. All programs should be tested prior to installation. It is often possible, through facilities provided by most manufacturers, to "de-bug" the programs on the selected equipment before it is installed.

3. Physical installation. This involves a consideration of space, power, and air conditioning requirements.

In some cases, relocation of existing equipment must be provided for.

4. Conversion of existing records.

In any large-volume operation, you must decide whether to convert the

existing records or to place only current records in the new system.

■ E. G. Benser.
SYSTEMS & PROCEDURES,
February, 1957, p. 30:6.

How Individuals Save—And Why

ECONOMISTS AND STATISTICIANS have a lush variety of definitions and measures for "saving." One basic measure is liquid savings—currency, bank deposits, securities, savings and loan association shares—and these seem to be pressing to a postwar high, up 49 per cent from a year ago compared with a modest 8 per cent rise in personal income.

While these figures have been drawing the attention of bankers, a different approach—the why's of savings—has been studied by George Katona, program director of the Survey Research Center at the University of Michigan, who recently completed an analysis of the public's attitude towards savings and installment buying.

In the main, Katona's findings confirm the accepted view that most people save to guard against emergencies, or for some specific goal such as retirement or a child's education, or for a combination of the two.

At the same time he has come up with some new findings on the psychology of savings. Thus, among urban consumers there is still a powerful credo that saving is good in itself, an almost religious view far older than Ben Franklin's Poor Richard. But, as in other aspects of morality, more people preach than practice. In any given year, more people announce their intention to save than actually do so. By the same token, in any given year there are many more people who say they have savings or reserves right now than there are who claim to have had some the previous year.

The yen to save, it appears, is not dampened by Social Security and pension plans or by fears of inflation. Few consumers said they expected more than small price increases for the near term; and few people "accepted the notion of an 'inflationary age' in which the value of money steadily depreciates."

If most people regard saving as a positive good, a very strong minority of U.S. consumers look on installment debt as a definite evil. While 51 per cent of consumers thought installment debt a good idea, a full third of them thought that it was a bad one. The hostile feelings toward installment debt were concentrated at the extreme ends of the income spectrum.

Forty per cent of the individuals with no installment debt thought it was a good idea to have such debt; 43 per cent thought it a bad idea. The higher the amount of installment debt, up to over \$1,000, the more people thought it was a good idea, the fewer thought it was bad.

—Business Week 10/27/56

Making the Most of Your Open House

AN OPEN HOUSE can be a highly profitable event for your company, provided you have a legitimate reason for inviting people to your plant and plan each step of the program carefully.

The reason is important. No one gets enthusiastic over a 17th anniversary or the dedication of a new locker room. But a 10th, 25th, or 50th anniversary or the formal opening of a large new building are honest news.

Every company has many different "publics." If you're considering an open house, why not run a series of affairs, tailored for specific groups?

Press-Radio-TV: Hold a special preview for representatives of these media the first night. This may be the right time to invite your civic officials, too. Be sure to include your fire and police chiefs, sanitary inspector, postmaster, and others who constantly serve your firm.

Family Night: Your second reception can be for employees and their families. Have plenty of soft drinks and snacks, and be sure each guest gets a souvenir and a chance to meet the management.

Key-Customer Night: By the third day you'll have all details under control, making it a good time to hold a plant tour and buffet supper for your key customers. Success of this event depends on organized personal contact by all sales personnel. Furnish any special transportation necessary, and have lots of good food and drink on hand. You may even want to provide professional entertainment.

General Public: If their curiosity has been properly stimulated by skillful publicity, people will come in large numbers to see your plant. When they leave, their feelings about your company will depend on how well you have succeeded in making their evening a pleasant and educational one.

Here's a check list to guide you in preparing and running a successful series of open-house evenings:

1. **Working plan:** Make a separate working plan for each event, and specify who's supposed to do what and when. Assign responsibility for the entire series to one executive—your advertising or public relations manager.

2. **Advertising:** If you're aiming for profits, don't expect your whole promotion to ride free in the press, radio and TV. Set a modest ad budget for each medium, and don't forget to run a thank-you ad afterward.

3. **Special section in local newspapers:** This has tremendous promotion value, but make sure the admen don't alienate your friendly suppliers by pressing them for expensive ads.

4. **Direct mail:** You'll want an appropriate type of invitation for each of your publics. The special customers should receive personal letters from your president. Enclose a reply card so you'll know how many are coming.

If your town's small or medium-sized, send a hand-addressed printed invitation to each family in the phone

book. If you have retail routemen, leave an invitation at each home they serve.

Your customer night requires particularly intensive promotion, because most of the customers are busy executives. Follow each letter with a personal phone call, and send each man a reminder telegram the day before this event.

5. *Publicity:* Start your publicity six weeks before the event, but feed it out slowly at first, so you'll have plenty left for the final push. Rather than rely on canned releases, get reporters into your plant in advance.

Consider breaking the news first in your employee magazine, on bulletin boards, or through intra-company memos. Employees have a right to get such news before the public.

If you have the space, go strong on photographs. Stress the features that will attract plenty of visitors.

6. *Dates:* Set your open house dates well ahead of time, and make sure they don't conflict with other important local events.

7. *Door prizes:* If you decide to

give away door prizes, have your guests fill in door prize slips with name and address; that tells you who was there and eliminates the awkward guestbook.

8. *Literature:* If you haven't a current company booklet, it's time to print one now. Give each departing guest a copy so he can review what he's seen.

9. *Line-of-march:* Provide clear directional signals for your line-of-march. Put signs and displays where necessary to explain a process, and have employee hosts to help guide the groups.

10. *Safety:* Establish a special safety committee to make sure no one gets hurt. Rope off dangerous areas, and enforce no-smoking rules.

11. *Parking:* This is a key factor in many cases, because people won't come if they can't find parking space. If there's no space near your plant, you might hire a central lot and run a shuttle bus.

■ *Walt Seifert.*
ADVERTISING REQUIREMENTS,
April, 1957, p. 39:4.

Pinpointing Your Materials Handling Problems

ACCORDING TO recent estimates, materials handling accounts for 25 per cent of the total manufacturing costs in American industry—a disturbingly large proportion in view of the inefficiency with which this important function is so often performed. Opportunities for major savings through improvements in materials handling exist in many companies.

Such improvements can facilitate the flow of production, warehousing procedures, and shipping room operations, as well as contribute to product quality, customer service, inventory control, etc.

Many companies whose business is expanding are under the impression that their present manufacturing facilities are inadequate and addi-

tional space is required, when the real trouble is that their materials handling practices are inefficient. A study of what can be done to improve the utilization of present space may result not only in substantial curtailment of contemplated expenditures for new facilities but in reduced costs of operating the old.

Consideration of the points presented here may help in pointing to areas where important materials handling improvements can be made:

Materials Handling Equipment:

Are maintenance costs on the materials handling equipment continuously rising? It may be time to replace the equipment.

Do shop trucks operate empty more than 20 per cent of the time? Better scheduling of the lift trucks can reduce the number of trucks and handlers needed.

Is the major portion of the materials handling equipment over seven years old? There is probably better equipment available now. Also the requirements of the plant may have changed: A 10-ton hoist may be needed to replace the five-ton hoist purchased years ago.

Is one type of handling equipment used for many different kinds of handling jobs? There may be a need for more specialized equipment.

Can operations be integrated to justify further mechanization? It may be too costly to mechanize each of several small warehousing areas, but combining the areas can make mechanization economically feasible.

Can lift trucks fit into highway trucks and railroad cars? If they can't, the material must be loaded

manually or rehandled with other equipment. There are lift trucks available that will fit into these low entrances, thus avoiding the extra handling.

Are tilting lift trucks extensively used for transportation over short distances? These trucks are most suited for distances over 50 feet, and a different type should be used for shorter distances.

Storage Areas:

Can more efficient use of storage space be made by mechanically "tiering" stock to the ceiling? Consideration must be given to proper utilization of the total cubic area of storage space—not just the square-foot area.

Is first-in, first-out storage used where necessary? First-in, first-out storage may be important for many products not normally considered perishable, such as painted metal parts on which the enamel can deteriorate. The storage area should be designed for easy access to such parts without the handling of other parts not needed at the moment.

Is space lost in storage areas because all shelving is the same height? Miscellaneous items vary in height. If all shelving is designed to accommodate the highest item, there will be a considerable waste of storage space.

Production Departments:

Are materials in process or completed assemblies placed directly on the floor? Since they will usually have to be conveyed elsewhere, they should be placed on carts, skids or pallets rather than on the floor.

Are there many rehandling points along the production lines? There

may be an opportunity to use mechanized equipment to eliminate excess handling. A change in the layout of the machines may also be indicated.

Handling Procedures:

Does the purchasing department give the receiving department adequate information as to what materials to expect, when to expect them, and where to send them? Such information can help to eliminate misrouting and delays.

Is there a separate provision for handling special work? To avoid upsetting routine materials handling

procedures, there should be special procedures and equipment available for handling special and rush jobs.

Do many handling jobs require two or more employees? Employees working in groups of two or more usually accomplish less than the sum total of each working alone. Part of a crew may often be idle when a specific operation requires only a few men.

■ Herbert Bisen.

THE PRICE WATERHOUSE REVIEW,
December, 1956,
p. 15:7.

Keeping Tabs on Your Key Men

WHEN A COMPANY is hunting for a talented man on its payroll to fill a particular job, chances are it would like to know in a hurry three things about each of its key men: (1) what jobs he's held; (2) what kind of work he'd like; and (3) what job his boss thinks he can do best.

Supplying this information is the purpose of the Engineering Personnel Locator system developed by General Electric Co. Although GE uses this system only to keep track of its 10,000 engineering people in 153 plants, it is applicable to key jobs in manufacturing, too.

GE's locator card for each of its engineers classifies job information into five categories: function, activity, field, product, and position. This makes it easier and quicker to spot job experience than by job title alone or by involved job descriptions, GE feels. Furthermore, it enables GE to code the data for comparison on a high-speed data-processing machine.

The search for a man to fill a vacancy goes like this: The manager wishing to fill a job sends a specification for the kind of person it requires to GE's Engineering Personnel Register. There a sorting machine searches all locator cards and picks out the ones describing individuals whose qualifications most nearly match those desired. Anywhere from 12 to 100 cards might be turned up. Registry then compares additional job data on the cards, in order to narrow the list of candidates to the five or ten best suited. Information on these is sent to the manager for consideration.

The principal purpose of the registry is to see that no qualified person is overlooked. It does not try to pick out the one best man, nor does it eliminate any consideration an individual might receive through other channels.

—Factory Management and Maintenance 4/57

Management Rights: Going, Going...Gone?

ARE MANAGEMENT RIGHTS the natural endowments of the manager's position, or are they really privileges granted by contract or by law? In this question lies a fundamental conflict in the philosophy of labor relations which is vitally important to business men today.

The position that management rights grow out of contract or statute appears to reject the concept of management control of the business and substitute a form of control that is negotiated between management and the union. In this view, the best management is one that works out *all* of its problems with the union in a generous spirit of cooperation.

Cooperation between union and management is a fine objective as long as the area in which they cooperate is defined and limited. But to translate cooperation into a denial of management's right to control the direction of an enterprise is to confuse utterly the respective functions of management and unions.

"Cooperative control" is no substitute for management control. Even though consultation with union representatives may precede—and often should precede—major company developments, the decision must be made by the manager.

Appropriate collective bargaining is not in question here. But there is a point beyond which unions cannot go without serious and permanent damage to the industrial machine.

The list of compulsory bargaining areas is steadily expanding, and the scope of arbitration is growing. Collective bargaining may now be compelled on a subject as intimately connected with business control as an employee stock-acquisition program. Arbitration can be required where an employer has made a conventional business decision; frequently a union is able to override an employer by extralegal efforts without reference to the law or to a labor contract. All of these developments reduce the legitimate control of the manager.

With increasing frequency, arbitrations are hinged on the existence or nonexistence of a management-rights clause in a contract and on the scope of the arbitration clause. The dangers of this trend are obvious. If an issue is arbitrated, a third party, a stranger to the business, will make the final decision, and may reverse the one that was originally made by management. Yet no matter how able an arbitrator may be, no matter how experienced in the field of his specialty, no matter how much of a record is presented to him, he will not have available all of the factors necessary to reach a fully informed decision.

The management that is forced into arbitration of its decisions is well on its way toward losing control of its operation. If it is not going to give up its rights whenever challenged by a union, on what basis can it make its stand?

If, in fact, management prerogatives exist only by virtue of the labor agreement, it is logical for management to insist that every contract contain a strong management-rights clause and a sharply limited and defined arbitration clause. Some day in the future, however, the union may reject the management prerogative clause, and management may decide to acquiesce and delete the clause rather than stand the expense of industrial warfare. As things are now developing, an arbitrator under those circumstances might conclude that management had abdicated its position. But at some point a line must be drawn, because not even the most aggressive union would claim that all decisions without exception must be negotiated. It follows that these management rights are derived from some source unrelated to and antecedent to the collective bargaining agreement. They must be based on principle.

By the very nature of our basic institutions, the one who owns or manages must control. True, the extent and exercise of control are mitigated by circumstances of time and place. The one who controls the means of production and who hires the labor of others to assist him in his enterprise owes a duty to his employees, and it is the proper func-

tion of the union to secure for its members the performance of this obligation. But it is not the proper function of the union to insist on participating in those decisions that lie beyond this area.

What can management do to preserve its rights? There are two possible approaches, neither one entirely satisfactory. The first of these is a determined insistence upon a strong management-rights clause and a sharply defined arbitration clause in every labor contract. For short-term results, this solution appears to offer the most comfort to management. In the long run, however, the consequences are hazardous.

The better course would be the re-establishment of management rights as a matter of principle. The courts have not abandoned principle as a solution to current legal problems. In the books will be found decisions in which the common-law right of an owner to control his property is still recognized, limited only by express provisions in a contract. If this principle were reaffirmed by the United States Supreme Court in a case where the issue was clearly defined, the erosion of management rights might be halted.

■ James B. O'Shaughnessy.
LABOR LAW JOURNAL,
January, 1957, p. 25:5.

POWER PLANTS to meet burgeoning U.S. needs will require \$94 billion investment by public and private sources over the next 20 years, says Interior Secretary Fred Seaton. He estimates that, in the future, 77 per cent of U.S. power expansion will come from coal and oil plants, 14½ per cent from atomic plants, and only 8½ per cent from hydroelectric plants.

—Time

How Our Industrial Map Is Changing

INDUSTRY, heeding the well-known admonition of Horace Greeley, has been trekking westward for the past 75 years. In the next 20 years, it will continue to move west but will also fan out to other regions, especially toward the South, trailing after the population movement as well as attracting new workers to these areas.

Since 1947, the shares of the Central, Middle Atlantic and New England areas in the nation's manufacturing facilities have declined, while those of the Southern, Far Western and Northwestern states have increased. The highest industrial growth rate has been registered in the Far West.

The most important factors in determining the face of the industrial map of the country—not the *business* map with its financial centers and lines of distributive and service trades—have been the available sources of fuel and raw materials, and transportation and communication services. Half a century ago, iron ore, copper, cotton and lumber comprised a preponderant part of industrial raw materials. Today gypsum, potash, borax, bauxite, uranium, sea water and the air itself—as well as dozens of other raw materials unknown or unused in 1900—are the basis for large and growing industries. Because these materials are found in widely scattered regions, industrial dispersion is fostered.

The increased use of oil and gas has lessened the importance of coal supplies which were a key factor in

industrial location up to a generation ago. And within the next 20 years nuclear reactors will probably begin to supply a significant fraction of industry's power requirements, giving further stimulation to industrial dispersion. The chief known deposits of reactor fuels are quite remote from the principal sources of coal, oil and gas. Moreover, a nuclear reactor, unlike other power plants, need not be located close to its source of fuel supply for economical operation, because nuclear fuels are light and easily transportable. This fact makes it possible to erect nuclear power plants in areas where other fuels are unavailable or uneconomical.

The development of new and improved means of transportation and communication will also promote industrial dispersion, by reducing barriers of time and distance.

The chief beneficiaries of this industrial dispersion will be the Southeast, the Southwest and the Far West. However, these areas will not necessarily gain at the expense of the Central, Middle Atlantic and New England areas. The general growth of population, as well as the continuance of market-tied industries, such as baking and brickmaking, will probably forestall an absolute decline in the regional "home market" for industrial products manufactured in the Central, Middle Atlantic and New England areas, despite a relative decline in their share of the nation's industrial activity.

For a variety of reasons, the indus-

trial growth of the Southeast in the next 20 years will probably outstrip that of the other three regions most likely to expand at a relatively high rate. It has a market for its industrial products close by: the populous Northeast. An abundant labor supply is available at comparatively low wage rates and there are adequate fuel and energy sources: off-shore oil from the Gulf of Mexico, natural gas from Louisiana and Mississippi, and coal from Alabama, Tennessee and Kentucky. Moreover, the area is endowed with domestically unmatched resources of two important industrial raw materials, bauxite and timber, as well as adequate reserves of many other raw materials including phosphate rock, sulphur, pyrites, iron ore, gypsum, feldspar, mica and magnesium. Finally, it has an hospitable climate, a factor that is enticing people as well as industries from the more congested and colder areas.

The Far West will be a close runner-up. This area's postwar rate of growth has exceeded that of the Southeast, but the advance in the next 20 years will probably slow down. Up to now, the preponderant part of the Far West's growth since World War II has occurred in southern California, where basic resources are limited. Its deficiency in fresh water supplies cannot be overcome

by present water storage programs, and its oil, gas and other fuel supplies are already inadequate.

The third highest rate of industrial growth in the next two decades will probably come in the Southwest. Unmatched sources of oil and gas not only assure cheap fuel for the generation of power but also provide the basis for a vast petrochemical industry. On the other hand, climatic factors do not favor a population increase comparable to those of the Southeast and the Far West. The aridity of the region appears to be increasing, and temperature fluctuations are wide and erratic.

To soften the accompanying economic distress as industries leave for greener pastures, the Federal Government can be expected to play an increasing role. In the next 20 years, it may very well exert a check on the industrial dispersion trend by sponsoring long-range public projects in depressed areas. Construction of the St. Lawrence Seaway, for example, will open up the entire Great Lakes region to ocean vessels. Not only will the seaway bolster the existing industry in the Central and Middle Atlantic areas, but it is also expected to attract new plants and factories.

■ Herbert O. Jason. CHALLENGE, February, 1957, p. 18:5.

AMA SPECIAL MANUFACTURING CONFERENCE

AMA's Special Manufacturing Conference on the Factory of the Future will be held Monday through Wednesday, June 10-12 inclusive, at the Carter Hotel, Cleveland.

What's Ahead in Government Spending?

HOW MUCH DOES THE GOVERNMENT BUY? Here are some impressive figures showing what the government is spending and will spend for supplies, materials and services:

Defense: Every 24 hours the government pays out more than \$100 million to military contractors, subcontractors, and for payroll. In the 12 months starting July 1, the U.S. will spend about \$44 billion for military security at home and abroad. About one-third of this will be for purchase of military hardware—electronics equipment, machine tools, aircraft, ships, vehicles, and weapons. Payroll will account for half of defense spending.

General services: In the 12-month period ending June 30, 1956, General Services Administration, the government's "housekeeper," spent \$418 million for supplies, equipment, and services used by federal agencies; \$34 million for ECA foreign aid supplies; and \$198 million for stockpile buying.

Atomic energy: In the same period, the U.S. Atomic Energy Commission spent \$279 million for supplies and materials, and \$47 million for equipment. For the fiscal year ending June 30, 1957, this spending will rise to \$431 million for supplies and materials, and \$62 million for equipment. Estimates for 1958 are \$660 million for supplies and materials, and \$89 million for equipment.

—The Iron Age 4/4/57



Would You Hire Your Son?

"PERSONALLY, I would not employ a relative. It's unfair to the relative and possibly unfair to others. A relative is trouble."—*President of a construction-products company in Massachusetts.*

"We wouldn't even hire a woman as a secretary if she were so much as a niece of an executive."—*Personnel manager of a steel-products company in Kansas.*

These are drastic opinions of a practice that is widespread in U.S. business. For the fact is, relatives hire relatives right and left. A survey by *Fortune* of the top executives of 175 of the largest U.S. corporations revealed that no less than 55 per cent of the companies had close relatives or in-laws holding management jobs in the same company. In an earlier study of 8,000 executives made in 1952 by Professor Lloyd Warner and James Abegglen at the University of Chicago, it was found that two out of every five men whose fathers were top-ranking executives and three out of every five men whose fathers were owners of large businesses had positions in their fathers' companies.

Some executives are not only tolerant of the practice of hiring relatives but quite impatient of any criticism of it. Most executives, however, hold that they are neither for nor against the hiring of relatives as such, but simply feel that those who can qualify for management should be promoted, regardless of whether

they happen to be related to somebody in the company.

There are many degrees of business nepotism, of course, and one way of defining and differentiating them is according to the conditions under which the favored relative is introduced into the company.

Thus *out-and-out nepotism* would be the appointment to a top job of a relative with little or no experience and no evident qualification. Practically every executive is, or would say he is, against such appointments.

A second degree of nepotism might be called *nepotism-plus-training*. Here the executive puts his relative to work in a beginner's job with the idea of training him for a number of years, grooming him carefully for a top job.

A third category is *nepotism-plus-training-subject-to-company-veto*: i.e., the young relative may enjoy some slight favoritism in getting hired, but has to prove himself or get fired by his immediate superior, without any overriding intervention by his sponsoring relative in management. Here the corporate machine, not the high-placed relative, is in control.

Those who condemn all such practices out of hand as discrimination in favor of relatives must decide also whether it is fair to discriminate against a relative. Certainly a no-relative hiring policy can work a hardship on competent men who might want to work for a particular company. Out-and-out nepotism, however, is obviously unintelligent—par-

ticularly if there is no strong man on hand to protect the heir from his mistakes, and if the heir himself shows no real promise.

Sons make out well enough in their fathers' companies, even if they don't always have the old man's talents. Warner and Abegglen found that of some 1,100 executives who had relatives in their companies half became chief executives of their companies. But of those holding executive titles below the vice presidential level, only about one-sixth had, at one time or another, family connections in their firms. "High position in the hierarchy is positively connected with the presence of kindred," was the scholars' not surprising conclusion.

They also found that nepotism is more prevalent in smaller companies than in big ones. In about a third of those with sales of less than \$10 million, executives had relatives in the same firm; but in only 9 per cent of the big companies (over \$250 million in sales) did executives have relatives in the firm. Executives with relatives in their companies took, on the average, about 20 years to reach top management; those without relatives took about five years longer.

Few companies have taken an official stand against the hiring of relatives. The policies of the vast majority (over 90 per cent) of *Fortune's* sample of 175 big companies were found to be very flexible. These were the most common unofficial policies reported: (1) Hire anyone, including relatives, who can meet the company's personnel standards. (2) Promote everyone "strictly on merit." (3) Insist that no two relatives work in the same department, so that no

one is supervising a member of his family.

Only about one-tenth of the companies surveyed reported specific rules against admitting relatives of executives to management ranks.

What do executives themselves think about nepotism? F. S. Cornell, Executive Vice President of A. O. Smith Corp. of Milwaukee, expressed the most frequently heard argument against adopting antinepotism policies: "We might miss some real good talent that way. If we do hire a relative, and he's no good, we'll find it out soon enough, and he'll be treated like any other incompetent."

The point was repeatedly made by personnel managers that a son will work harder, and be more enthusiastic and more loyal to his father's company, than other executives.

Curiously, few executives cited what may be one of the strongest points in favor of relatives in management: compatibility. Relatives are likely to have the same social views, tastes, education, and economic backgrounds, as well as a close knowledge of one another's personal quirks, preferences, and prejudices that may never be acquired by an executive outside the family circle.

The overriding fact is, as several executives pointed out, that competition and the demands of the market place soon take care of any company that relies on incompetent relatives in management. Knowing this, large companies usually sidetrack such relatives into unimportant jobs, where they are closely watched by some able executive who actually runs things. As a last resort, top management will take the hard step of re-

moving the incompetent relative from the company.

What it all boils down to, clearly enough, is: (1) that out-and-out nepotism, unless vindicated rather promptly by performance, is not good business; and (2) that nepotism in its milder and more common forms has not done any significant harm to American business, and in some

cases has been beneficial. Indeed, a dogmatic policy against hiring relatives can be wrong for the corporation in depriving it of unusually loyal men; and a certain amount of discrimination in favor of relatives may actually be advantageous to everyone concerned.

■ *Perrin Stryker. FORTUNE, March, 1957, p. 132:10.*

Plant Housekeeping with a Two-Way Payoff

DESPITE THE OBVIOUS importance of a clean plant and properly maintained machines, the usual harangues, pep talks, and gimmicky special inspections are seldom enough to keep a housekeeping program going along on its own steam.

The reasons aren't hard to find. Keeping a plant in tiptop shape requires repetitive effort which is quickly undone. The rewards for compliance are few, so why make the effort to "pick up, paint up"? Moreover, the term "housekeeping" has some negative connotations, particularly for men, who may associate it with "woman's work."

Campbell Soup Co. (Camden, N. J.) decided two years ago to reorganize its plant housekeeping activities completely to provide some solid incentives. The successful program that resulted is designed to pay off for the first-line supervisors as well as for the company as a whole.

It's now called "plantkeeping," which suggests a group rather than an individual activity and is more

likely to enlist the support of male employees.

The primary responsibility for tidiness—since it involves working with maintenance and cleanup people as well as hourly workers—rests with the supervisors. So the company decided on a supervisory incentive plan as a basis for the new plantkeeping program.

Responsibility for the reorganized program was given to the supervisor of expense standards. He is assisted by a committee of 33 top line and staff management men. Two of these committeemen serve as permanent inspectors, responsible for at least three or four inspections of production areas each day. The other 31 make at least one inspection a week.

For inspection purposes, the plant has been divided into 67 areas, each with its own code number. The areas to be inspected on a particular day are picked by random sample. Should an area be overlooked for a long time because its code number has not turned up in the sampling process,

the committee chairman makes sure that someone is assigned there. Standards set by the plant manager are the yardstick for measuring plant-keeping performance.

Plantkeeping is included in a supervisory training program made up of seven four-hour training sessions held on Saturday mornings. Each session is limited to the foremen of a single department (or several small adjacent departments), and usually does not exceed five or six men. Foremen are paid for attending.

Plantkeeping is just one of six cost factors included in the over-all supervisory incentive plan, and is weighted at 10 per cent.

Plantkeeping itself has been broken down into five factors, all differently weighted: equipment, 30 per cent; floors, 25 per cent; buildings, 15 per cent; personnel, 15 per cent; and general orderliness, 15 per cent. The weights for these factors are based on three criteria: importance to final product; areas believed to need the most improvement; and the most obvious and easily recognizable elements.

After an area is rated, the foreman's scores on the five factors are compiled into an over-all percentage,

which serves as the basis for calculating his premium pay for plantkeeping. To emphasize the role of specific factors in earning an incentive, a monthly report is sent to each foreman comparing his rating in each of the five factors with his previous rating and with the ratings of other foremen.

The inspectors or the standards department also let foremen know the results of each inspection and constantly prod foremen with poor departments.

How do hourly workers react to the fact that they are asked to cooperate in good plantkeeping, but do not participate in incentive earnings? The company has tried to impress upon them that a neat workplace will improve the speed and efficiency of their operations. This is meaningful to the hourly people, most of whom are on piecework. Many of them used to complain that they couldn't afford to take time out to clean up their workplaces. These are now convinced that under the new arrangement they, too, can earn more money.

■ EMPLOYEE RELATIONS BULLETIN
(National Foremen's Institute, Inc.,
New London, Conn.)

February 6, 1957, p. 9:6.

EMPLOYEE DISHONESTY costs American business more than all other forms of direct crime loss. Although no complete figures have been compiled, partly because many losses have never been discovered, records indicate that more than 10 per cent of all business failures are due, at least in part, to employee dishonesty. Claims paid by insurance companies engaged in writing dishonesty insurance totaled nearly \$20 million in 1955, and in the five-year period from 1951 to 1955, the total was over \$100 million!

—Norbert A. Drake in *Best's Insurance News* 4/57

New Spur to Foreign Investment

A NEW FINANCING AGENCY—the International Finance Corporation—has been set up in Washington to give owners of capital in wealthy nations a chance to invest in countries needing industrial development. For example, a U.S. corporation that wants to establish a subsidiary in Latin America can get the help of government equity, without government control. To date, 47 nations have subscribed capital totaling \$90,396,000.

The IFC grew out of a need for another financial instrument besides the World Bank to provide equity capital in countries needing industrial development by private enterprise. The Bank itself could not perform such a function because its business is making fixed-interest loans, not supplying equity capital. Besides, it is required to have government guarantees when making loans to private companies, something many private business men do not like because it opens the door to government control.

For the time being, IFC plans to concentrate on industrialization, although it may enter other fields later. Some applicants have proved ineligible for aid because their projects were too small or too big: At the outset, IFC's policy is to invest not less than \$100,000 in projects costing no less than \$500,000.

Applicants must meet the following requirements: (1) They must represent private productive enterprise; (2) they must put up the major share of capital; (3) the undertakings must be those for which sufficient funds cannot be obtained reasonably elsewhere; (4) they must not require IFC management responsibility; and (5) the applicants must not want bargain terms or cut-rate financing.

—Jack Robins in *Commerce* 3/57

Personnel Forecast for 1965: Eight Million Professionals

IF CURRENT TRENDS CONTINUE, professional personnel may number close to 8 million by 1965, accounting for a little over one out of ten workers, according to an analysis of future occupational requirements recently completed by the Bureau of Labor Statistics. The increase—from a present figure of around 6 million—will be particularly marked among professional workers in engineering and science, teaching, and medical services.

The two other groups comprising the white-collar occupations—clerical and sales people and proprietors and managers—are also expected to increase substantially. Clerical and sales people, who already account for one-fifth of the labor force today, will probably jump to 15½ million from their present figure of 12 million. Taken together, white-collar occupations represent the single biggest group in the labor force, and they are expected to increase steadily their margins over other groups.

Secretaries Wanted!

"I NEVER SAY a good word about my secretary outside the office," says a Chicago lawyer. "If I did, somebody else would have her on his payroll tomorrow."

To many U.S. business men, such caution is normal. Though a record 21 million U.S. women are working, only about 2 million hold secretarial jobs—and only a small percentage are genuine secretaries. As prosperity piles up the paperwork, the shortage becomes more severe; some 250,000 secretarial jobs go begging every day.

Because of the low birth rate during the Depression, available girl-power—for all jobs—is lower than at any time since the mid-1920's. Today, girls also get married younger (median age: 20), and married working girls quit earlier to have more babies. Moreover, secretarial work no longer has the prestige it had in the 1930's. A woman may now become an engineer, have more fun as an airline stewardess, or earn more as a buyer, librarian, or copywriter. Even some waitresses make \$150 a week, double the average secretary's salary, with half the strain.

In the fierce competition for talent, business men try every trick to find and keep good secretaries. In Chicago, Prudential Insurance Co. even puts its young girl employees to work recruiting their friends, rewarding them with one day off (with pay) for each catch. In New York, once a girl agrees to sign up, she may get as much as \$70 a week just to come

in and learn to be a secretary, and can make up to \$100 a week when she completes her training, twice what a seasoned secretary got 10 years ago. In sprawling Los Angeles, some business men tack on an extra \$25 a week to make up for the inconvenience of working downtown.

Higher pay is not the only lure. Across the country, business men beg for secretaries with bristling columns of help-wanted ads, promising prestige ("Your Own Office!"), or glamour ("Handle TV Stars"), or romance ("Young Execs!"). Many big companies, whose long-set salary and seniority schedules make them less attractive than higher-paying small companies, try to make up the difference with a long string of fringe benefits. After a survey of several score firms in the New York area, the Commerce and Industry Association of New York reported that 78.1 per cent offer profit-sharing plans, 52.7 per cent pay full costs for employees' health and accident insurance. But only the most exquisite melding of money, kindness, and men leaves a girl impressed. "Fringe benefits are such old hat," says one employment agent, "that the girls just want to know how many they're getting—not if there are any."

The scramble for secretaries often only compounds business men's woes. Because of a general feeling that secretaries over 35 are too set in their ways, too difficult to break into a new job with a new boss, business men concentrate on hiring "malle-

able" younger women. The trouble is that youngsters lack experience and are often unable to keep up with the office workload. Ten years ago a beginner took at least 120 words per minute in shorthand, did 60 in typing; today, she often takes only about 80 words per minute in shorthand, types 45. Secretarial schools cannot boost the standards; company raiders leave them with classrooms half empty long before graduation.

To solve the problem, some companies are turning to outside contractors who are willing to dip into the big pool of older women that regular employers neglect. Last year, for example, one temporary-help agency placed 50,000 such women (average age: 42) in temporary jobs, even used a retired 72-year-old secretary in Boston. Another line of attack is through increasing office mechanization. Standard-Vacuum Oil

Co. has recently set up a highly mechanized office in Harrison, N.Y., in which executives can dictate to 24 recording machines in a central transcription room, where expert typists quickly do the work. Yet mechanization is not the final answer. The girls find the work boring and faceless. And a machine can't go out on its lunch hour and buy a birthday present for the boss's wife.

By the 1960's, when the big crop of World War II babies comes of age, vastly expanding the U.S. labor supply, the secretary shortage should solve itself. But meanwhile, business men would do well to reassert hiring standards and loosen up on age restrictions. If they fail to do so, they may have forgotten how good a good secretary can be.

■ TIME,
April 8, 1957,
p. 80:1.

Seven Guides to Better Community Relations

ONE OF THE significant developments of recent years has been the growth of an intense interest on the part of an ever-increasing number of people in the affairs of business concerns that affect them and their friends and neighbors. Undoubtedly, this development is a result, at least in part, of the vast improvements we have made in our transportation and communications systems; it must also be attributed, in part, to the fact that corporate business constantly is growing, and more and more people, as em-

ployees, suppliers, customers, investors, and simply as neighbors, are directly and indirectly affected by what the corporation does and how it does it.

A survey of public opinion, made a few years ago in a middle western industrial city, tested seven corporations for their standing in the community. The results showed that the company that paid the highest wages was not considered the best place to work. Instead, the most popular companies were those that had managed

to transmit to their neighbors the feeling that they were something more than profit-making machines—those which, over the years, had convinced the residents of that community that management wanted to help create better lives for those who worked and lived there. This evidences a mode of thinking on the part of our employees and of our neighbors which it would be perilous to ignore.

No amount of rules or cliches can govern every aspect of individual or corporate behavior. A company, like an individual, must deal with each situation separately as it arises. However, we can set down a few general rules to guide us in our progress towards being better neighbors.

1. *Be successful.* The true and basic security of our employees, and of the community dependent upon our payroll, rests directly upon a successful and profitable operation of the enterprise. A successful business provides a service to the community that automatically carries with it steady employment, job opportunities, taxes, local purchases, and dividends to the stockholders.

2. *Be a good employer.* One of the great oil companies recently conducted an opinion survey in the communities in which its plants were located. It was found that 77 per cent of the community residents who held a favorable opinion about the company based those opinions on conversations held with satisfied employees. Conversely, 56 per cent of those holding unfavorable opinions received their impressions from dissatisfied employees.

From such studies, it is obvious that employees are a prime factor in

shaping a community's impression of, and attitude toward, a corporation. It is not possible to have good public relations without good employee relations.

3. *Be responsive.* Take an interest in community problems. Be a ready listener whenever problems dealing with the general welfare are up for discussion. You may not always be able to help, but at least you can listen, and you owe that courtesy to the community. Show your willingness to help if you can, and, if you can't help, say why you can't.

When a problem comes to you for decision or comment, give an answer or take action as promptly as possible. Don't delay unnecessarily when the community is looking to you for leadership or for action. Your promptness will be appreciated by the community and will go a long ways towards stamping your company as a leader.

4. *Be generous and helpful.* Most modern corporations attempt to do their share financially, particularly with respect to the reputable charities of the community. But generosity frequently calls for a willingness to work in the interests of the community and its welfare, it often involves the furnishing of leadership, and it may involve the furnishing of other things—all the way from encouragement to facilities and manpower.

One large company lends a full-time staff of 100 employees to help organize the United Fund Drive in the city of its principal operation. We can't all be so generous with manpower, but there may be other things we can do. For example, a

business may be able to lend some part of its corporate or professional skills to work on a community-wide problem, such as air or stream pollution, slum clearance, traffic congestion, or sewage disposal, and thus make the community a better place in which to live.

5. *Be active.* Too many businessmen have lent their names to worthy causes upon the assurance they would not be called upon to do any work. Those of us who have done this would be better advised to accept fewer responsibilities, but take the leadership, or at least an active interest, in those we do accept. The gratitude of the community goes to those who are leaders and doers, and the corporation benefits from the reputation of being staffed by people "who get things done."

6. *Be accessible and hospitable.* Neighbors are suspicious of the house with the tightly drawn shutters. Don't withdraw from the community or

operate behind a curtain. No single step develops more good will than a demonstrated willingness to be accessible to the press and other representatives of the community for the discussion of any subject of mutual interest.

7. *Be expressive.* Let the community know the facts about your business and its relation to the community—your purchases, your payroll, your taxes, etc. Put your policy on community relations, corporate donations, etc., in writing, and let the community know what it is. The mere act of putting such a statement in writing and holding it out for all to see helps the community to understand the company's aims and problems and has a direct bearing upon its reputation as a good citizen.

■ *From an address by John A. Barr, (Chairman and President, Montgomery Ward & Co.) before the National Industrial Conference Board's 371st Meeting in St. Louis.*

No Breaks for Coffee-Haters?

THE AMERICAN WORKER who doesn't like coffee is in something of a quandary. What is he supposed to do during the coffee break—go on working like a dope? Some figures recently provided by the Ohio Manufacturers Association suggest that he has quite a problem. The O.M.A. polled about 800 firms on the coffee-break situation and got back 667 answers, 593 of them from companies that have coffee breaks. A majority of the 593 have two coffee breaks, in fact, one in the morning and another in the afternoon. Over a third of the companies have installed coffee-vending machines; many others have the stuff brought in by catering firms. There is no reason to suppose that Ohio is especially advanced in its industrial coffee habits. The effect of all the sipping and chatting on national productivity is incalculable, though presumably significant. The effect on the coffee business must be sensational. But the break still seems hard on poor old Joe, back there at the turret lathe, boring away—the man who doesn't like coffee.

—Fortune 4/57

ALSO RECOMMENDED

Brief Summaries of Other Timely Articles

GENERAL

COMPANY PLANNING MUST BE PLANNED!

By Ralph M. Besse. *Dun's Review and Modern Industry* (99 Church Street, New York 8, N.Y.), April, 1957. 75 cents. Company planning is just as dependent on good organization, specific training and effective administration as any other phase of business activity, says the author. In this article he discusses the important steps involved in pre-planning preparation, including (1) creating a company-wide planning climate; (2) providing planners with the necessary know-how; (3) assigning responsibility for the development of each plan; (4) making sure the planners have enough time for the job; and (5) providing for adequate supervision of the planning program.

HOUSING: THE STALLED REVOLUTION.

By Emmet Hughes and Todd May. *Fortune* (9 Rockefeller Plaza, New York 20, N.Y.), April, 1957. \$1.25. While GNP has risen more than 9 per cent in the past two years, home-building starts have fallen 25 per cent, with the cutback mainly occurring in the lower end of the market. Although the authors of this article believe that some of the housing industry's troubles are due to factors beyond its control—such as tight money, the high cost of land, and the antipathy of many communities to low-cost developments—they maintain that the industry itself has aggravated its plight by lack of initiative in research and merchandising and failure to push for more rational building codes and sounder labor practices.

THE NEW AMERICAN CONSERVATIVES.

By Clinton Rossiter. *Harper's* (49 East 33 Street, New York 16, N.Y.), April, 1957. 50 cents. Who are the new conservatives in America and what is their

philosophy? After examining four distinguishable groups to the right of center the author concludes that the middle-of-the-road group, as represented by President Eisenhower, has the most plausible claim to the mantle of genuine political conservatism and that the new conservative philosophy now in the making will blend the stern half-truths of John Adams with the hopeful half-truths of Thomas Jefferson.

WHITHER SMALL BUSINESS?

By Paul Donham. *Harvard Business Review* (Soldiers Field, Boston 63, Mass.), March-April, 1957. \$2.00. Reports of the death of small business have been greatly exaggerated, says the author, pointing out that actually the recent business failure rate has been surprisingly low considering the tremendous increase in the number of new businesses started. Maintaining that small business men should not become overdependent on government help, he offers some suggestions for solving the three most serious problems they face: (1) managerial inadequacy; (2) difficulty of getting financing; and (3) high taxes.

PRODUCTIVITY AND EMPLOYMENT:

1955-1965. By Stephen Raushenbush. (The Public Affairs Institute, 312 Pennsylvania Avenue, S.E., Washington 3, D. C.) \$1.00. Rising productivity combined with the large increase in the work force due in the early 1960's will make a shorter work week or longer annual vacations necessary to maintain full employment, says the author. In this detailed analysis of the effect of automation on working level requirements over the next eight years, he presents data on productivity trends and changing labor demands.

FACTORIES FIT TO LIVE IN. By Neil M. Clark. *The Saturday Evening Post* (Independence Square, Philadelphia 5, Penna.), March 2, 1957. 15 cents. Rapid industrial expansion and dispersion have stimulated the popularity of a new kind of plant location: planned

industrial districts with streets, rail lead tracks, and utilities installed before sites are sold to prospective occupants. This article tells how one such development—Brook Hollow, Texas—provides companies with uncongested facilities and a pleasant location for work.

INDUSTRIAL RELATIONS

INFLATION-PROOF PENSIONS. By Alexander G. Hardy. *The Weekly Underwriter* (116 John Street, New York 38, N.Y.), April 27, 1957. 25 cents. To prevent inflationary erosion of its employees' pensions, one company (National Airlines, Miami) has developed a pension plan which gears retirement income to the government's cost-of-living index. Describing the operation of the plan, the author points out that a considerable part of the pension fund has been invested in stocks to provide additional income under inflationary conditions.

HEALTH PROBLEMS ON THE PRODUCTION LINE. Chicago Heart Association (69 West Washington Street, Chicago, Ill.). Gratis. This booklet presents highlights of the fourth Heart-in-Industry Conference, in which representatives of management, labor, and the medical profession discussed ways and means of making better use of available manpower by employing workers handicapped by heart disease. Some of the specific problems dealt with are: (1) returning the cardiac to work; (2) hypertension in the older worker; and (3) employing the young worker with a history of rheumatic heart disease.

GETTING ANSWERS TO MAINTENANCE TRAINING QUESTIONS. *Factory Management and Maintenance* (330 West 42 Street, New York 36, N.Y.), April, 1957. Reprints 35 cents. The importance of a continuous training program to keep maintenance workers abreast of the latest technological innovations in equipment and materials is stressed in this article, which offers pointers on such training problems as (1) selecting trainees; (2) selling the union on the program; (3) training older maintenance workers; (4) measuring trainee progress; and (5) budgeting training costs.

PENSION PATTERNS IN COLLECTIVE BARGAINING. By Meyer M. Goldstein. (Pension Planning Company, 625 Madison Avenue, New York 22, N.Y.) Gratis. This report examines a number of pension plans negotiated recently by unions in steel, automobile, rubber, and other major industries. The author notes that, although 86 per cent of employees are covered by single-employer plans, unions are accelerating their push for "pooled pension plans" in industries where labor mobility makes transfer of credits especially important.

OFFICE MANAGEMENT

WHITE-COLLAR WORKERS: UNIONS WOO THEM NEXT. By Alan E. Adams. *Factory Management and Maintenance* (330 West 42 Street, New York 36, N.Y.), April, 1957. 75 cents. The tremendous increase of office workers

in manufacturing companies has made them the No. 1 organizing target for the big industrial unions, according to the author. He observes that, despite the traditional white-collar resistance to unionization, labor leaders feel they

will have some new selling points working for them, such as the fact that production wages are substantially higher than white-collar wages and the trend to paperwork automation which is taking the gloss off the office worker's job.

25 WAYS TO EASE THE SQUEEZE ON PROFITS.

By Marilyn French. *American Business* (4660 Ravenswood Avenue, Chicago 40, Ill.), April, 1957. 35 cents. A report on what a number of large companies are doing to cut down on office and administrative costs. Among the effective steps they have taken are: (1) reducing the number of reports coming into headquarters by simplifying the financial reporting system; (2) intensifying clerical work analysis and simplification programs; (3) installing tighter budget controls; (4) making use of more modern equipment; and (5) using a sampling approach in many accounting and data-gathering areas.

WHAT YOU NEED IS S.P.I. By Charles A. Hill. *Modern Office Procedures* (812 Huron Road, Cleveland 15, Ohio), April, 1957. 50 cents. Properly developed standard-practice instructions can help office managers prevent serious slowdowns or work stoppages when key clerical employees are absent, says the author. In this article he describes

some of the factors involved in setting up and maintaining an effective standard-practice manual.

HOW CAN OFFICES MEET THE RISING COSTS OF PRODUCTION?

By Harry L. Wylie. *The Office* (232 Madison Avenue, New York 16, N.Y.), March, 1957. 35 cents. Although there is no pat answer to the question of whether to buy or lease office equipment, in many situations a company can benefit by using the leasing method to obtain cost-saving modern equipment without having to wait for traditional budgetary appropriations, says the author. He discusses the effect of tight money and the liberalization of depreciation rates on equipment leasing trends and presents tables comparing net operating charges involved in buying equipment or using either of two leasing methods.

CONTROLLING OFFICE SUPPLIES.

By Marilyn French. *American Business* (4660 Ravenswood Avenue, Chicago 40, Ill.), March, 1957. 35 cents. This article describes the methods used by eight companies to achieve maximum efficiency and economy in the purchase, storage and control of office supplies. Among the effective procedures recommended by the companies are centralized purchasing, solicitation of competitive bids, and periodic reviews of supply requirements.

PRODUCTION MANAGEMENT

AUTOMATE WITH "OFF-THE-SHELF" EQUIPMENT.

By Chester Linsky. *Flow* (812 Huron Road, Cleveland 15, Ohio), April, 1957. 50 cents. Too many manufacturers stay clear of automation because they are afraid it will inevitably involve expensive, highly specialized machines which must be amortized over short periods, says the author. Pointing out that a firm does not have to make complete automation its immediate goal, he describes some

low-cost, standard equipment available and gives concrete examples of how it can be incorporated with a plant's present facilities to profitably increase mechanization of operations.

GUIDE TO BETTER SCRAP CONTROL.

The Iron Age (Chestnut and 56 Streets, Philadelphia 39, Penna.), March 28, 1957. Reprints gratis. A properly organized in-plant scrap charging system can pay off in lower production costs

and fewer scrapped parts, according to this article, which offers some helpful pointers on various aspects of scrap control, including: (1) setting up a scrap-charging team; (2) establishing a scrap quota for each manufacturing operation; and (3) assigning proper scrap responsibility to each operating department.

MECHANICAL-ASSEMBLY EQUIPMENT.

By G. R. Fitzgerald. *Mechanical Engineering* (20th and Northampton Streets, Easton, Penna.), April, 1957. 75 cents. Companies should be on their guard against mechanizing their assembly processes on the assumption that "because it is automatic it is good," says the author, pointing out that automatic assembly is not always the best solution from a cost standpoint. He recommends a detailed study of existing facilities to

determine the exact degree of assembly automation necessary to produce maximum efficiency at reasonable cost.

HERE'S HOW MACHINES TAKE OVER IN THE MODERN WAREHOUSE.

By J. J. Brown. *Canadian Business* (524 Board of Trade Building, Montreal, Canada), April, 1957. 50 cents. To eliminate the warehousing bottleneck, the same mechanized, high-volume methods that have revolutionized production must be applied to this function, the author believes. Concentrating on the input side of the warehousing operation, he describes some equipment and systems that can improve the efficiency and speed of unloading goods from boxcars or trucks, conveying them to their proper storage point, and arranging them so that orders can be made up on a first-in, first-out basis.

MARKETING MANAGEMENT

PRICING PROPOSAL AFFECTS YOU.

By Henry J. Bison, Jr., and George P. Lamb. *Nation's Business* (1615 H Street, N.W., Washington 6, D. C.), May, 1957. \$18.00 for three years. In these two articles, the authors present opposing viewpoints on a bill now before Congress which would amend the Robinson-Patman Act so that a company charged with price discrimination could no longer successfully base its defense on competitive practice alone. Arguing for the bill, Mr. Bison contends that it would benefit consumers by stimulating suppliers to pass price reductions to competing buyers on a fair basis, while Mr. Lamb expresses the opinion that the bill would shelter a small group of retailers at the expense of the economy as a whole.

FUSION OF AD AND SALES EFFORTS MEANS COMPLETE CUSTOMER SERVICE.

By Robert G. Silbar. *Printers' Ink* (205 East 42 Street, New York 17, N.Y.), April 26, 1957. 25 cents. In the integrated marketing setup at Bull-Dog Electric Products Co. (Detroit,

Mich.) the advertising department is given an important role not only in sales distribution and servicing of company products but also in product planning, production scheduling, and inventory control. This article describes how the ad department's close knowledge of all phases of product development has enabled it to plan more effective advertising campaigns.

SELLING AT TRADE SHOWS.

By Donald H. Thain. *The Business Quarterly* (School of Business Administration, University of Western Ontario, London, Canada), Spring, 1957. \$1.00. The author believes that many companies are skeptical of the value of exhibiting at industrial trade shows because they lack a clear understanding of the conditions under which this marketing technique can be successful and a knowledge of how to get the maximum benefits from exhibiting. He discusses the advantages and disadvantages of exhibiting, major operating problems, and criteria for evaluating the potential effectiveness of exhibiting a product.

WHY YOU SHOULD BLUEPRINT YOUR MARKETING PLAN. By George W. Davidson. *Printers' Ink* (205 East 42 Street, New York 17, N.Y.), April 19, 1957. 25 cents. As the modern marketing operation grows in scope and complexity, there is an increasing need for

definition and coordination of marketing activities through a carefully prepared written plan, the author says. He outlines an approach to developing such a plan and offers a detailed breakdown of the various subjects that should be covered.

FINANCIAL MANAGEMENT

DEFERRED-COMPENSATION PLANS TODAY. By Laurence F. Casey. *The Journal of Taxation* (147 East 50 Street, New York 22, N.Y.), April, 1957. \$1.25. A report on recent court decisions, government rulings, and proposed regulations affecting the administration of deferred-compensation plans. The author discusses the implications of a number of new developments in the field, including the recent ruling on split-dollar insurance affirming the principle that interest-free loans by an employer are not taxable income for the employee and various proposals designed to facilitate the use of restricted stock options by smaller corporations whose stocks are not listed.

GUIDES TO INTERNAL PROFIT MEASUREMENT. By Gordon Shillinglaw. *Harvard Business Review* (Soldiers Field, Boston 63, Mass.), March-April, 1957. \$2.00. A reliable method of measuring the profit performance of individual divisions is essential to effective decentralization, says the author. Discussing various techniques of profit measurement, cost recording and analysis, and internal transfer pricing, he concludes that the "controllable profit" concept is the most useful approach to division-profit evaluation.

GETTING THE FACTS TO THE FOREMAN FOR CONTROL. By Paul Scharninghausen. *N.A.C.A. Bulletin*, Section One (505 Park Avenue, New York 22, N.Y.), April, 1957. 75 cents. In setting up cost-control procedures, management too often fails to supply the line supervisor with the accounting tools he needs to maintain a close watch

on costs in his department, the author believes. He describes how cost data supplied to foremen at Tung-Sol Electric, Inc. (Newark, N.J.), including daily labor analyses and reports on material usage, controllable overhead, and quality level, have resulted in savings far greater than the extra clerical expense involved.

MONEYLESS BOOKKEEPING. By B. A. Margo. *Canadian Business* (524 Board of Trade Building, Montreal, Canada), March, 1957. 50 cents. Pointing out that inflation has made it difficult for management to evaluate its working-capital position because the unit of value is never fixed, the author suggests that the solution may be a moneyless bookkeeping system using standard units of measurement based on job skill. Using concrete examples, he explains how such a system would enable a company to get a true picture of its productivity trend and make reliable comparisons of its financial position from year to year.

BASING CAPITAL OUTLAYS ON RETURN ON INVESTMENT. By Stephen T. Heinaman. *N.A.C.A. Bulletin*, Section One (505 Park Avenue, New York 22, N.Y.), April, 1957. 75 cents. This article describes a system for evaluating capital appropriation requests developed by Armstrong Cork Co. (Lancaster, Penna.) to eliminate projects of doubtful potential. Tracing the steps involved in the evaluation of a typical expenditure request, the author shows how return-on-capital-employed is used as a pretesting tool for making sound decisions on future outlays.

RESEARCH AND DEVELOPMENT

LET'S STOP THIS SHOCKING WASTE OF SCIENTIFIC MANPOWER.

By Albert Q. Maisel. *Reader's Digest* (Pleasantville, N.Y.), May, 1957. 25 cents. Piratical recruiting practices and misuse of skilled talent are aggravating the engineering shortage so severely that there have been cutbacks in military and civilian research programs and critical delays in the completion of urgent defense contracts, the author charges. Contending that the Pentagon is fostering disruptive raiding by reimbursing contractors for their recruiting expenses, he recommends that these subsidies be withdrawn so that companies will find it cheaper to train technical assistants and increase the productivity of the engineers they already have.

EDUCATION FOR ENGINEERING-U.S.S.R.

By Lawrence Sandek. *Research & Engineering* (77 South Street, Stamford, Conn.), April, 1957. Reprints gratis. Pointing out that many observers believe we are losing our technological lead over Russia, the author describes the methods used by the Soviet Union

to educate the engineers and technicians it needs. Many of these techniques can be democratically adapted by us, he maintains, including (1) paying teachers better salaries and according them higher social status; (2) increasing subsidies to education; and (3) making science more attractive to young people.

PATENTS AND PROGRESS: IS OUR

PATENT LAW OBSOLETE? By Joel B. Dirlam. *Dun's Review and Modern Industry* (99 Church Street, New York 8, N.Y.), April, 1957. 75 cents. Grave doubts have been voiced recently about the ability of our patent system to cope with the problems presented by invention in an age of jet-propelled corporate research, says the author, pointing out that only chemical and electrical companies are finding the patent law commercially useful. After discussing some of the current trends in invention, he concludes that, although certain administrative reforms are needed in the Patent Office, the patent law itself is still basically serviceable.

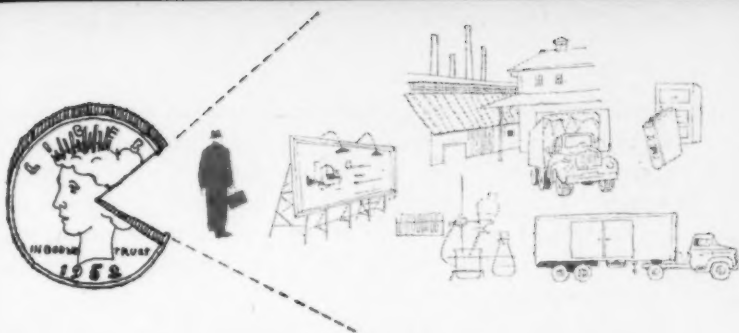
INSURANCE MANAGEMENT

THE COSTS OF ATOMIC INSURANCE.

By Edward I. Farley and Alonzo C. Rand. *The Insurance Broker-Age* (90 John Street, New York 38, N.Y.), April, 1957, and May, 1957. 15 cents. In order to provide the tremendous amount of insurance protection needed by atomic power plants because of the danger of a catastrophic nuclear accident, a large part of the American insurance industry has pooled its resources to offer coverage of approximately \$60 million per installation. In this two-part article, the authors discuss the coverage of atomic insurance, how the premium rates will be determined, and what effect the cost of insurance will have on the economics of the nuclear-power program.

THE INDIVIDUAL POLICY PENSION

TRUST. By John T. Callihan. *The Weekly Underwriter* (116 John Street, New York 38, N.Y.), May 11, 1957. 25 cents. Although a fully insured pension plan based on the individual policy has major advantages for the employer, says the author, it also has several drawbacks in comparison with other plans, including higher initial cost and lack of flexibility. He describes a modified approach which incorporates two different funding plans—the individual policy plan and the self-administered, uninsured plan—and results in lower initial and net cost, greater flexibility of annual contributions, and the elimination of actuarial fees.



How Much for Marketing?

■ **Lydia Strong**

PERHAPS THERE IS NO SUCH THING as a surefire formula for consistently high profits—but one unschooled entrepreneur, who had made a modest fortune out of his small business, had a sound working principle. Asked the secret of his success, he replied: "I buy for a penny and sell for a nickel. I'm satisfied with 4 per cent."

In his eye for profit, this merchant of yesterday did not differ too sharply from today's highly schooled and sophisticated manager of marketing. But as to the formula, many would disagree. One must figure much more closely to earn "4 per cent" today.

The relatively new title of marketing manager epitomizes today's approach to doing business at a profit. The marketing department, in the firms where it exists, controls sales, advertising, and promotion, of course. It probably takes in also market research, new product planning, distribution processing and warehousing; it will have an important, often a decisive, voice in production scheduling. The function of the marketing manager is not only to find out what consumers want but to bring it to them, within a cost and price structure that yields a satisfactory profit to the company.

Marketing costs in particular are coming under closer scrutiny. Sales volume alone is no longer taken very seriously as a criterion of performance; too many companies have boosted their sales in a boom market only to wind up with a lower rate of net profit than before. The marketing manager must expand sales—true—but he must achieve the expansion at a cost low enough to yield adequate returns on invested capital.

As Fred J. Borch, Vice President of Marketing Services of the

General Electric Company, pointed out at the AMA Marketing Conference in February, the investment required to carry out a marketing decision—whether for plant or for distribution setup—is rising. Therefore “the price of errors in basic marketing decisions is not only the cost of producing the wrong product at the wrong time for the wrong market, but the loss of our resources and the loss of further capacity to correct our errors.”

To discover how forward-looking companies apply the profit approach to marketing, THE MANAGEMENT REVIEW conducted a survey among participants at the Marketing Conference.

Of the 64 respondents, large and medium-sized firms across the country, 59 are manufacturers. The majority produce industrial goods—machines, parts, and materials for industrial uses—but manufacturers of food, clothing, and other consumer goods are represented also. Gross sales last year ranged from a high of \$2 billion to a low of \$500,000, for the 54 companies answering this question.

MARKETING COSTS ARE UP

Typically, one-tenth of the sales dollar is spent for marketing by the firms surveyed. This is a median figure—actual expenditures range from 1 per cent to 35 per cent. Consumer goods manufacturers tend to spend more than the manufacturers of industrial goods, and firms grossing under \$25 million appear to spend much more than large ones.

Actually, most of these estimates are understatements, since, as will be shown, many companies fail to consider all their costs of distribution as part of the marketing budget.

For more than half the respondents, the ratio of marketing costs to sales results is higher than five years ago; one-fourth report lower costs, one-fifth say costs are about the same. The trend to higher costs is especially strong among consumer goods manufacturers; also it is more marked in larger companies.

WHERE MARKETING DOLLARS GO

In this predominantly industrial sample, direct selling accounts for by far the largest slice of the marketing budget. Four times as much is spent for direct selling as for advertising and promotion in

the companies surveyed; typically, direct selling costs absorb 72 per cent of the total budget, advertising and promotion 18 per cent. Only half the respondents report their allocations for market research; these usually hover between 1 and 3 per cent of total marketing expenditures, though a few companies—both industrial and consumer goods producers—spend as high as 10-12 per cent.

But these proportions are changing. More than half the companies surveyed are spending more for advertising and promotion, and for market research, than they did five years ago. Furthermore, they expect to expand this part of the budget further in the next five years.

WHAT IS A MARKETING COST?

How realistic is the marketing budget? Do companies figure in the total costs of distribution? In an attempt to find out, respondents were asked to check which of a list of expenses incurred in order-getting and order-filling were considered in whole or in part as marketing costs.

This distinction is far from semantic. An activity that is considered to be part of marketing is more likely than otherwise to be brought into line with other marketing activities.

A machinery manufacturer, for example, considers warehousing a marketing cost. A survey of sales potential in strategic areas across the country revealed that the system of warehousing at the factory was slowing up deliveries and therefore hurting sales. In the company's new distribution setup, warehouses and sub-depots are located in the field. This speeds shipments and it also enables the company to permit dealers to place large orders, taking delivery as needed from the nearest sub-depot. Sales have improved, and in addition the new warehouse system provides a sensitive source of information on the actual movement of goods to customers; this helps with sales forecasts and production scheduling.

In the Lighting Division of Sylvania Electric Products, a marketing services department has been organized which controls, among other things, clerical order processing. A new order-writing and billing procedure was developed which speeds deliveries to customers while halving the former cost of the operation.

Administrative expenses of selling, such as sales force recruit-

ment and training and fringe benefits to marketing employees, appear in this sample to be readily recognized as marketing costs. Nine companies out of ten charge all or part of their sales force recruitment costs to marketing; more than eight out of ten recognize that fringe benefits to marketing employees are part of the cost of distribution.

Ideas on just what constitutes marketing show no particular consistency. Thus, four companies out of five see clerical order processing as wholly or partly a marketing cost, but fewer than two-thirds see either the shipping or warehousing of goods in this light. In dealings with customers after the order has been shipped, two companies out of three feel that the cost of accepting goods returned by customers, and of adjusting their complaints, is wholly or partly a marketing cost, but fewer than half consider that the cost of extending credit to customers or of collecting from them is part of marketing. Having stock on hand is usually a necessary condition for selling, yet only 37 per cent of respondents consider that interest on the investment in inventory is a marketing cost.

The cost of product development is charged at least partly to marketing by a majority of industrial goods manufacturers. Package design is considered a selling cost by most manufacturers of consumer goods. Just over half of the companies surveyed charge some or all of their public relations costs to marketing. In general, large companies show somewhat more readiness than small ones to consider any expenditure for distribution as a marketing cost.

PROFIT RATIOS

Profits after taxes, as a percentage of sales, ran from 1 per cent to 18 per cent last year among the companies surveyed. The median profit, for all companies disclosing it, was 5 per cent. Median profit for companies grossing \$25 million or above was 5.5 per cent; for smaller companies, 4 per cent.

Admittedly, profits on sales are a poor basis for comparing so diverse a group; a grocery chain or a food manufacturer netting 1 or 2 per cent on sales may well be earning more on investment than a heavy machinery producer netting 10 per cent or more. Nevertheless the comparison, for what it is worth, favors the larger firms.

The trend of profits from 1955 to 1956 deepens this impression:

Over-all, more than half the companies surveyed improved their profit-sales ratio last year, but this trend was reversed among smaller companies.

Some of the profit advantage of big companies may be attributed to their superior position in both buying and selling; some might be attributed also to the greater propensity of larger firms to analyze costs and to plan.

THE PROFIT APPROACH

Three out of five companies report that they conduct specific activities for the purpose of analyzing and evaluating their marketing procedures in terms of profitability, rather than by sales volume alone. Larger companies are more likely than small ones to do this. More than half the companies are studying also the possibilities of increasing profits through new or improved marketing methods.

A breakdown of profits by product line is most widely used; breakdowns by market area or by sales district are also popular.

An electrical machinery manufacturer reports:

"A formalized planning program is followed which revolves around return on investment. Each operating division sets its sales goals and plans its products and production for profitable operation. Returns by product lines are the basic criteria. Of course, we have regular reports on performance in respect to sales objectives, issued monthly by area, industry, and salesman."

PRODUCTS AND PRICES

More than half the survey participants figure profits on product lines, and close to half figure profits on individual products. The profit calculation may be based primarily on sales cost, or it may, more reliably, be based on study of all costs involved in production and marketing. A few companies confine profit estimation to new products, with or without follow-through to determine whether the forecast has been fulfilled.

A drug firm maintains a ten-year history of all major products. Both sales and promotional costs per quarter are recorded on an ingeniously designed chart which shows at a glance how much was spent, how it was spent, and how this affected sales. Outside events which could influence sales—such as prominent press, radio, or TV

comment on a particular product—are also shown on the chart.

The effects of changes in discount schedules have been explored by an instrument manufacturer: at what point does it pay to give a larger discount—and how much larger—in order to get more volume? This company learned also, through its analysis of costs and profits on individual products, that it was overpricing standard items and charging too little for special orders. Price revision brought greater volume on standard goods, and a higher over-all profit.

Pricing studies are used widely for new products. Typically, the product is sold at various prices in test areas to determine which price yields the best combination of volume and profit.

SALES AREAS

Concentration of sales efforts on the best territories, or the most promising territories, is explored by many firms. A baker serving an eight-state area breaks this down by “advertising markets”—regions which can be reached by a given local advertising campaign. In each market, potential sales are determined on the basis of population, per capita income, total food sales and the company's present share of the market. If the share of the market is low, the company tries to determine why it is low, and whether added promotion would be profitable. Sales results are the check; if promotion doesn't pay off it is assumed that the market research was faulty.

An industrial equipment manufacturer made this same sort of survey on a national basis, comparing its share of business with total business in each trading area. It learned that even if it got all the business that its current distributors could write, this would not fulfill its sales and profit goals. On this basis a determined—and profitable—effort was made to expand distribution in those areas showing the highest potential for the company.

DISTRIBUTION CHANNELS

A special field, under study by almost half the companies surveyed, is the profitability of alternative channels of distribution. Most common is some form of comparison of direct selling results with results of selling by outside agencies.

A food company, for example, can give better service to army

installations by selling direct than by selling through brokers as has been its custom. But direct selling costs more. Question for investigation: do direct sales produce enough extra business to be worth the cost?

Even the addition of new distributors is quite costly, where extensive engineering know-how is involved. One manufacturer of control devices finds that it takes three months of a fieldman's time to set up a new distributorship. The company therefore made an analysis, based on Department of Commerce statistics, of the sales potential for its product in each major industrial group and in each metropolitan area of the United States. This showed where to look for new outlets. There remained the problem of choosing the best possible distributors in each area. As one factor in choice, the company calculated the minimum acceptable sales potential for the first year of the new distributorship.

Usually a breakeven point is figured for any type of distributional setup. But if a territory shows high sales potential, many companies will cover it in a gamble for future profits, even though the immediate promotion doesn't pay.

A number of manufacturers are experimenting with different kinds of assignments for their salesmen. An industrial firm which deals with a number of national companies having plants in various parts of the country is studying the profitability of having such key accounts handled by national salesmen rather than territorial salesmen or distributors. The territorial men would continue to receive credit for all sales in their areas, but would do servicing rather than selling on the "national" accounts. A food company is conducting a controlled experiment on the productivity of teams consisting of one salesman with two or three routemen.

Too many companies are tied to traditional ways of distribution, one consultant commented. The fact that a company has "always" sold through a certain type of distributor, or that it has always sold direct, does not guarantee that this is the only way or the most profitable way to do business today.

IMPROVING THE CUSTOMERS

The rate of profit yielded by various customers or types of customers is studied by some companies. Customers who prove un-

profitable may be dropped—or the company may take positive measures to improve them.

A carpet manufacturer determined by continuing sales analysis that certain customers who developed a tendency to overstress mill ends and seconds tended also to lose some of their share of the market, and thus to become less effective outlets. The company's salesmen were instructed how to show buyers tactfully that they too were the losers from this type of operation.

PINNING DOWN PROFIT RESPONSIBILITY

A company's balance sheet automatically shows the net profit on over-all operations. How successfully, though, can the firm find out what it is getting for dollars spent by specific persons or departments?

Queried about this, some marketers throw up their hands. One respondent, the market development manager of a large chemical company, replied: "Sales are made by a combination of salesmen, advertising sales promotion, quality of goods, etc.—very seldom by one thing alone."

Others do, however, manage to pin down profit responsibility to some degree. Companies that calculate returns from dollars spent by the marketing manager use primarily the criterion of profit on over-all operations. In judging performance of sales managers and branch managers, a few companies stick to the profit standard, but others judge by sales volume alone, or by sales compared to quota or sales compared to selling cost. As has been shown by the National Association of Cost Accountants some years ago, sales figures are not adequate to measure the performance of individual sales territories. At AMA's Marketing Conference, Lawrence A. Watkins, Sales Vice President of Ditto, Inc., described a method of assigning profit quotas rather than sales quotas to district sales managers.*

Ditto's comparison of sales volume and profit volume from its branches showed tremendous discrepancies. One territory, for example, had improved both its sales and its net profits by about one-third. But another branch was able by selective selling to reap a 102 per cent profit increase from a 30 per cent increase in sales.

* Mr. Watkins' paper was published in "The Integrated Approach to Product Planning," AMA Marketing Series No. 100, 1957.

About one-third of the companies attempt to measure returns from the work of individual salesmen. Again, this is usually done on the basis of sales volume—but there are exceptions. One survey participant, a meat-packing concern, has placed its salesmen on a partial profit-sharing basis. Each salesman gets a weekly profit-and-loss statement on his own operations, based on the selling price less the actual costs of production and distribution.

Other companies measure a salesman's performance in relation to market potential and cost, or the total sales volume is broken down by individual product quotas, especially for the sale of high-profit items.

Most of the companies surveyed, incidentally, use some sort of incentive payment—bonuses, commissions, prizes—as part of their salesmen's pay. Close to half have moved toward increased emphasis on incentive pay to salesmen in the last five years.

ANALYSIS YIELDS NEW IDEAS

The better a company can determine what it gets for its marketing dollars, the more freely and intelligently it can plan. Where costs and profits are creatively approached, many profitable ideas have developed.

One electrical machinery manufacturer, in the process of calculating profits on individual products, was able also to plot the probable demand cycle for each product. This enables the company to smooth out production, taking up slack times on fluctuating items with production of others for which there is constant demand.

A carpet manufacturer experimented with three marketing ideas—old in other fields but new to floor coverings—which paid well: selling in the home, financing the purchase of carpets on the installment plan, and preparing a carpet "selector" which shows at a glance all colors available in a particular style. (This last simple and seemingly obvious device alone steps up sales 20 per cent, the firm calculates.)

EFFECTIVENESS OF ADVERTISING

Despite the increasing reliance on advertising, promotion, and market research, most companies find it hard to evaluate results. More than half the respondents try to measure the performance

of advertising media; this is done primarily by measuring direct returns such as coupons or inquiries or sales traceable to particular advertisements. This method, unfortunately, has very limited scope, since most advertising produces indirect rather than direct results. A number of companies use readership tests or other forms of audience survey, made by themselves, their advertising agencies, or outside companies. Such ratings—even though the findings of different raters vary widely—do provide some measurement of the attention gained for the company's product, but attention and even interest don't guarantee sales. In fact, as one writer has observed, "Readership of a brand's advertisements can go up while its sales are going down."* No respondent came up with a method for getting a definite answer to the key question: "How much did this advertisement do for sales?"

Advertising appeal—that is, the particular theme of an advertisement—is about as important as the medium. But less than one-third of the companies do any checking to measure the effectiveness of an advertising appeal. Usually such a test, if made at all, is made after the fact; the advertising appeal is judged by the readership, number of inquiries it has stimulated, and so on. Comparatively few marketing managers report any pretesting of advertising appeals by such methods as a trial run or exposure to a consumer panel.

PRODUCT CHANGES

Changes in product or package are usually made with the hope of stimulating sales. But just how effective is the change? Fewer than one-fourth of the respondents try to find out. Those who do usually go to the consumer for the answer, by means of market tests and consumer surveys. A few check performance of the new product or package by analysis of sales results.

The effectiveness of store displays and other aids to retailers is checked by about half of the companies producing any significant volume of consumer goods. Tests tend to be realistic: a baking company, for example, keeps complete records of sales with each new display, by store, and compares these with sales in stores

* Albert W. Frey, in *How Many Dollars for Advertising?* Ronald Press, 1955.

that don't have displays. Spot checks and checks in test areas are used also. Another gauge of performance is the extent of use by dealers: how many put up the display, how many consign it to the trashcan.

Market research—except for one special phase—is checked by few of the companies surveyed. The one special phase, the sales forecast, can be tested directly against sales; this test is applied, in greater or less detail, by most companies.

WHAT IT BOILS DOWN TO

Accounting for costs and profits is not just a mathematical chore, nor is it a grim process of holding down costs, come what may. Holding down costs may not even be a good idea. As Frank W. Mansfield, Director of Marketing Research for Sylvania, observed at AMA's Marketing Conference, reducing the ratio of advertising expense to sales—a favorite stratagem in many companies—may actually reduce profits, if it causes the loss of profitable business. Mr. Mansfield added:

"We have got to stop treating our distribution expenses as the *result* of sales—we must start trying to defend these expenses as the *cause* of sales. All such expenses must show tangible results. They can be defended only on the basis of return on investment."

The problem is, therefore, to cut costs that can be cut without sacrificing profit, while stepping up other costs and activities which create sales volume on which the profits more than balance the promotional expense.

This problem is far from simple; in fact, techniques have yet to be developed for answering some of the key questions in distribution cost decisions. Nevertheless, more and more companies are finding they must move in the direction of a greater degree of distribution cost control. The marketing philosophy, with its accompanying concept of responsibility for profits, is spreading.

THE GREATER PART of all the mischief in the world arises from the fact that men do not sufficiently understand their own aims. They have undertaken to build a tower and spend no more labor on the foundation than would be necessary to erect a hut.

—Goethe

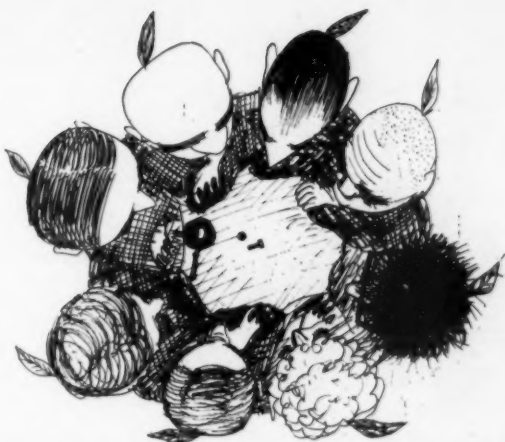
Who's Running Things Around Here?

We are all partly what we were. Just as 20th-century Homo sapiens still shows traces of the primitive forms from which he evolved, so does today's manager still betray an occasional resemblance to his primitive progenitors, who did not have to work as hard as he does at getting things done through people.

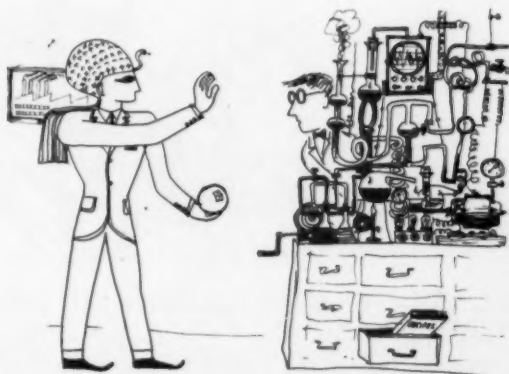
It's hard to find a full-blooded specimen of the primitive manager today. Most of these crusty characters have succumbed to the trying conditions of modern industry. Few, certainly, survive in the offices of our enlightened readers. But here and there, in cobwebby forgotten corners of industry, the ancestral archetypes can still be observed. For example:



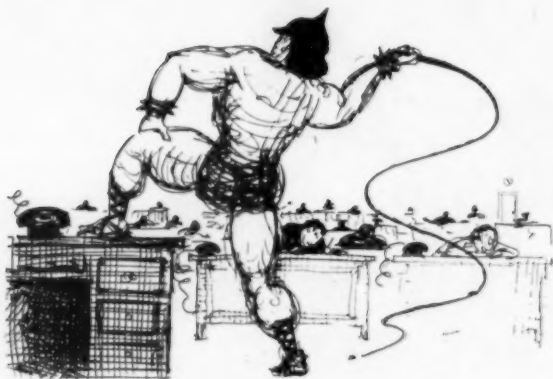
The Old Man. Crouching over the controls of his company, he makes short shrift of unwary challengers and crunches the bones of every male who shows signs of self-assertion. Eventually, he knows, a knife will find the right spot between his shoulder blades, and there will be a new Old Man. But it just isn't in him to let go.



Tribal Council. Control is not always exercised by an individual. In some fear-ridden tribes, nobody dares take responsibility for a decision. When to make war, where to plant corn, how to nut a bolt—the elders get together and wait for the Spirit of the Totem to send inspiration. Sometimes they sit like that for days.



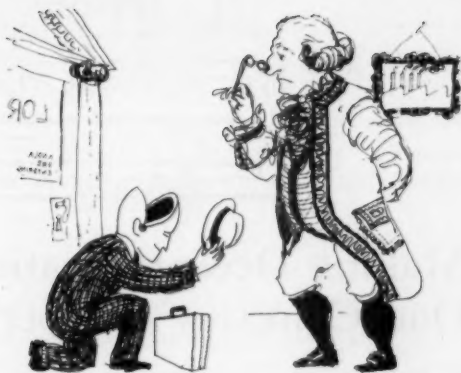
High Priest. Once J.B.'s intuition starts ticking away, it's goodbye to research and staff studies and out the window with the analytical approach. Management by hunch, whim and hocus-pocus may end in disaster, but for sheer excitement there's nothing like it.



Galley Master. Motivation? The whip will do. Morale? Don't make him laugh—slaves don't know the meaning of pride in the job. As for loyalty, they had a better way of handling that in the old days. Chained 'em to the galleys, and they *couldn't* quit.



The Viking. By instinct a predator, he does little work and hardly ever bothers himself with the prosaic details of management. Instead, he prefers to keep a keen eye on other people's projects, ready to pounce when the payoff comes in sight. His success with these tactics is apt to be temporary, since eventually either he gets careless, misjudges a target, and pounces flat on his face, or else his victims—whom he's apt to underestimate—get together and pounce on *him*.

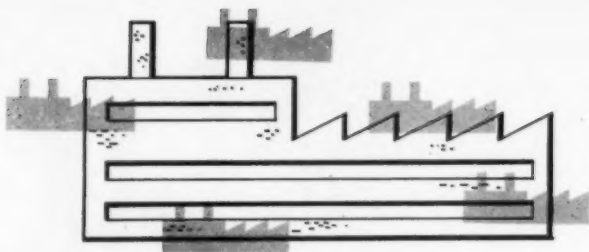


Lord of the Manor. Ruling by divine right, he assumes full responsibility for the spiritual and temporal welfare of all his serfs. The Open Brain Policy is evidence of his fatherly interest in their every thought, wish, and dream.



The Crusader. The sales chart is plummeting, labor trouble is in the wind, and out in the shop the new automatic transfer equipment has just been installed backwards. But don't bother the president for the next ten days. He's just been drafted to put the affairs of the Board of Education on a sound business basis.

■ Text by LYDIA STRONG
 ■ Drawings by IRWIN GLUSKER



Making Decentralization Work: One Company's Experience

■ **P. E. Mills**

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ONE OF THE MOST SIGNIFICANT INFLUENCES shaping our present industrial economy is decentralization, which is occupying an increasingly important place in the current organizational planning of many corporations. Like many other terms, however, "decentralization" has different interpretations, and three clearly defined classifications can be identified.

The first type of decentralization concerns the purposes of work and the organizational structure by which these purposes are achieved. In *The Practice of Management*, Peter Drucker suggests two kinds of decentralization that fall within this class: (1) "federal decentralization," by which activities are organized into autonomous product businesses, each with its own market and products and with its own profit-and-loss responsibility; and (2) "functional decentralization," in which integrated units are set up with maximum responsibility for distinct stages in the business process.

The second class, geographical decentralization, is probably of least importance to the individual in our increasingly mobile society. As our values change, and as we grow into new kinds of personal expectations, the old home town is just another place on the map,

This article is based on a presentation by Mr. Mills before Unit II of the AMA Management Course.

and where we live has far less weight than what we do in order to live. We recognize today that the basic security for the individual lies more fundamentally in the preservation of the family unit than in its permanent identification with any particular community, and the search for individual opportunities to strengthen such unity permits us to accept the loss of geographical location stability without fear.

THE NEED FOR PERSONAL PURPOSEFULNESS

In a sense, these two classes of decentralization affect the mind and body of the individual. The third class, decentralization of authority, touches directly on the spirit of men and answers the need of all normal individuals to make some kind of meaningful contribution to the betterment of their environment—in other words, the need for personal purposefulness.

Modern students of psychology insist that our urge to contribute our knowledge and skills to society arises out of a need to exploit our desire for self-assertion. Competition in business seems to be as much tied up with this need for recognition as with the attainment of physical well-being. As Lord Russell points out, "What people fear when they engage in the struggle is not that they will fail to get their breakfast next morning, but that they will fail to shine in the eyes of their neighbors." This desire—personal and self-serving as it may be—is still at the root of progress, and society functions through its ethical and moral judgments to channel these motivations into socially acceptable actions. In industry, the goal is a fusion of the purpose of the individual with that of the company.

The decentralization of responsibility and decision-making authority in the corporate establishment thus has a sociological justification which is so fundamental and so forceful as to remove it, as a principle of business philosophy, from the area where choice is possible. In other words, we are dealing with a condition imposed by our environment, and because it is consistent with our ethical system, we cannot reject it.

This concept of decentralization has been dominant in General Electric's approach to decentralization. Of course, we have decentralized according to product lines, adjusted our organizational struc-

tures to obtain the benefits from functional specialization, and moved our plants and offices to widely separated communities in order to be closer to material and manpower sources and to our markets. But it is the application of the principles of decentralization of responsibility and decision-making authority which is breathing new vitality into the company and is bringing a new sense of purpose to every employee.

DECENTRALIZATION AT GENERAL ELECTRIC

Like many other corporations in a position to develop and manufacture needed materials for war, General Electric expanded and diversified during World War II. So rapid was the company's growth that we began to move into the dangerous position of an organization without a sense of common identity, without a recognition of common objectives, and without a sense of mutual responsibilities and purposes. These effects had been anticipated, however, and shortly after the beginning of hostilities a penetrating review of GE's situation was undertaken.

One result of these studies was a realization that the company could no longer continue the highly centralized kind of management which had been one of the great sources of its strength in the prewar years. In 1945, President Ralph Cordiner expressed four basic reasons for the company's decision to decentralize:

The first and most obvious reason for managerial decentralization was that the company's growing size and complexity were creating a demand for an increasing variety and volume of decisions. These decisions had to be made closer to the scene of the action to insure the complete understanding necessary for good decisions.

The second reason was that for some years size had been cited in some quarters as an evil in itself, despite the fact that many of the most important advances in living standards so obviously came as the result of the combined strength, experience, and integrity of large institutions. Knowing that the company's size made extra contributions to its customers and shareowners and that its volume and variety of facilities and activities brought extra benefits to its employees, the communities in which it does business, and the country as a whole, General Electric sought to combine the social

strength of the large institution with the social virtues and closer relationships possible in smaller organizations.

The third reason for decentralization was the realization of an entirely new demand—in proportions never before experienced—for an increase in the value offered the customer. It was felt that specialization and individual concentration would provide the best chance for giving the greater value required despite rising labor, material, and tax costs.

Fourth and finally, decentralization was considered an aid in public and employee relations—a way to recognize the importance of these functions and to solve the intimate, personal, local cases of which they are comprised by bringing “top management”—that is, decentralized management authority—closer to the employee and the public.

In sum, then, the decentralization of responsibility and decision-making authority were undertaken to relieve the dilemma of increasingly complex technological and social problems which had to be solved to continue the enterprise; to add to the strength and opportunity of the large corporation the adaptability of the small; to marshal and direct our resources of people, machines, material, and money into patterns of greatest efficiency; and, finally, to bring to our employees a sense of the reality of the company itself, as expressed in the presence of its managers.

PRINCIPLES OF EFFECTIVE DECENTRALIZATION

Eight principles form the foundation of effective decentralization. As with many of the world's great precepts for social action, there have been evidences of their application on a random basis long before enough was known about them to provide documentation. These principles might be expressed as follows:

1. Authority to make decisions should be placed as near as possible to the point where action will be taken—at the lowest level where sufficient information is available to fashion the decision properly, where cognizance of the area of the impact of the decision exists, and where the necessary competence is present.
2. Decentralization can only work if real authority is delegated, and is a mockery if details still have to be reported and checked.
3. Management's faith in the abilities of men must be demon-

strated by allowing them all necessary authority to perform their voluntarily accepted responsibilities. Authority that is delegated cannot be reassumed by top-level executives at their convenience.

4. The meaning and obligations of responsibility must be clearly communicated as part of the process of delegation, in order that those who accept the opportunity to participate in decision-making understand the responsibility inherent in this power.

5. Communication is the heart of the fifth principle: Over-all business objectives, policies, plans, purposes, and relationships must be made available as fully and as frankly as required to provide motivation and information for decisions.

6. The function of counsel and advice must be contained within the meaning of those words. It is difficult to avoid pre-emptory procedures in the face of a wrong decision, and yet, because men sometimes learn only through their errors, the reality and magnitude of consequences must be carefully weighed before overriding actions are taken.

7. The aggregate of many individual decisions, soundly made at the level of competent information and functional intimacy, will be better for the business than those planned in the remote climate of central authority. The assumption that all things can be known and that all decisions in the many areas which might affect the operations of a business can be reached effectively by self-constituted oracles is not only a denial of the need for participation on the part of every individual, but frequently a demonstration of an ego of dangerous proportions. Yet there are managers who still seem to adhere to the philosophy of Jowett, the master of Balliol College, about whom a student wrote:

First come I; my name is Jowett
There's no knowledge but I know it.
I am Master of this college:
What I don't know just isn't knowledge.

8. Personnel practices must be based on measured performance; hence, standards and methods of measurement must be adequately devised, conscientiously applied, and astutely interpreted.

RESPONSIBILITY AND AUTHORITY

One of the fundamental problems of giving life to decentralization is that of establishing a consistent attitude toward the assign-

ment of work and its related decision-making authority. Authority must be considered intrinsic in the assignment of a job, and it must be full enough so that the work can be successfully accomplished. In this way, responsibility can be accepted without qualification, and accountability for the performance of work can be established without equivocation.

Clearly enough, the time-honored tradition of "decision with approval from above" has no valid place in the truly decentralized organization. Such "decisions" are, in fact, nothing more than hopeful recommendations; the actual decision is made at the point of approval. Without recognition of the basic conflict inherent in the concept of "approved decisions" and acceptance of the risk inherent in its resolution, decentralization will be no more than a plan on paper, and any attempt to implement it will rapidly take on the confusions of a comic opera.

The implementation of the decentralization of decision-making calls for a careful examination of the purposes and methods of managing. Managing is a distinct and professional kind of work that must be done to the exclusion of all other activities; that is, on a full-time basis. Many American businesses have operated too long under part-time management, with managers who are individual champion workers rather than leaders and coaches.

In simple terms, professional management is the application of the tools of planning, organizing, integrating, and measuring to achieve balanced and planned results through the specific work of others.

Without such leadership, the enterprise floats and spins in a sea of indecision, cross-purposes, and confusion. In a decentralized organization, where over-all objectives, policies, plans, and budgets are expressed at every managerial level, no area of incompetence can be considered unimportant. At General Electric, therefore, a great deal of our energies and a considerable investment of our resources are going into the development of managers on a continuing basis.

GE'S ORGANIZATION STRUCTURE

The tripartite organization structure of General Electric, designed to divide the total work of the company into three types or classes,

each with its own objectives and methods of operation, has enabled us to reduce the dissipation of our human and material resources in unneeded, duplicated, and often trivial activities. Moreover, it has taught us with considerable force that no class of work is subordinate, for each contributes fully and equally to the attainment of the company's objectives. Without any one class, the strength and position of the others cannot fully be used.

THE OPERATING COMPONENTS

The first class of work is performed by the Operating Components, which have two essential responsibilities. First, as business entities, they must create a climate that fosters and stimulates the attitudes and skills of timely and profitable production of goods and services. Such success, of course, is measured initially in the competitive marketplace and by the standards of that market. Second, Operating Components have a responsibility to capitalize on the opportunities that come from being a part of the General Electric Company. The degree to which this responsibility is met can be measured in the ability of these components to rise above standards set by their best competitors in serving their customers.

The Operating Components consist of departments grouped into divisions. This, of course, might be called federal decentralization. Within the departments, a functional decentralization is established by separating the work according to the functions that are part of every complete manufacturing and distributing business enterprise: Research and Engineering, Manufacturing, Marketing, Financial, Public and Employee Relations, Legal and Corporate, and Operations Research & Synthesis.

THE SERVICES COMPONENTS

The second major class of work is done by the Services Components, which also have a twofold responsibility: First, they must do everything possible to enable the Operating Components to provide the scope and quality of work that will mark them as leaders in their fields; and second, they must create within their own organizations the kind of climate that fosters and stimulates a willingness to explore areas of social, political, economic, and technological consequence beyond the present limits of knowledge. Thus, their

work is "to research and teach" and to develop an approach to long-range personnel development.

In order to provide this "look ahead," our Services Components have been organized, in general, to concentrate their efforts in one of the basic business functions mentioned above. Because the work is specialized, outstanding professional men are given opportunities to exploit their interests and potential to the fullest, both for the greatest contribution to the organization and for maximum personal satisfaction.

THE EXECUTIVE OFFICE

The third part of the structure is the Executive Office, which is concerned with the development of over-all objectives, policies, and strategy on a long-range basis to shape the company's continuity and growth.

Perhaps the balance and relationship of the three elements of the structure can best be understood by viewing their areas of responsibility against a time scale. In a most liberal use of time values—used here only to establish a relationship—Operating Components in General Electric deal primarily with current situations, tapering off their planning work at about 10 years. Services components accept these 10 years as committed and devote their energies to a span beginning at the 10-year date and tapering off at about 20 years. The Executive Office, finally, keeps aware of current operating problems and of the work of services components, but uses them to build objectives, policies, plans, and strategies which will give form and purpose to the company 10 years hence and beyond into the foreseeable future.

The Executive Office of General Electric consists of the president and those senior officers of the company who share the work of establishing over-all company long-range objectives, policies, and plans. General Electric is a corporate entity in the eyes of its customers, its shareowners, its suppliers, and the public, and it meets many of its public responsibilities as a single identified unit. Obviously, then, there can be no decentralization of the functions of the Executive Office; decentralization becomes a liability to the enterprise when it is pushed beyond the minimum level of the common interests to be served.

During the process of decentralization, we have been guarding against the vertical increase in the structural pattern, and, in fact, have actually cut down the number of managerial levels interposed between the president and those who have functional responsibilities. At the start, there were as many as 14 links in the reporting chain in the larger components; today, we are working with no more than seven, and we hope to further reduce the number of levels to five, which we believe to be a sufficient number for proper operation.

The reduction of managerial layers has improved communication throughout the organization. We see no reason to suppose that a further narrowing of the space between the top and bottom will not further enhance our ability to meet the most rapid variations of the economic process while maintaining optimum integration of the working teams throughout the company.

The minimization of managerial layers, accompanied by an increase in spans of managerial responsibility, has made the importance of full-time managing increasingly obvious. General Electric has found that those in managerial positions can undertake a fair proportion of added responsibility as their skill in the work of the professional manager is developed.

Important as the manager is, however, more than proper managerial attitudes and proper execution of the manager's work are needed to make decentralization effective. The functional individual contributors share with the manager the responsibility for successful operation of the decentralized company, for the purposes of managing are wholly devoted to the realization of their contributions. The work done by such individual contributors, utilizing functional knowledge and skills, needs to be organized and given direction to satisfy the purposes of the enterprise and to give it the only meaning which can have reward for the individual. It is the teamwork between managers and functional individual contributors that makes it possible for decentralization to be applied throughout the organization.

THE SOCIAL MEANING OF DECENTRALIZATION

In this country, we are moving rapidly towards an acknowledgment of the individual as a person who rightfully exercises his

choice and makes known his demands in a variety of ways. We know how to meet his demands for creature comforts and security, and we have equipped ourselves to acquit these responsibilities. Yet, the individual demands more. He wants work in which he sees purpose; he wants responsibility and authority in exchange for risk; he wants to be part of his enterprise, drawing from it his sustenance in exchange for his work. Most importantly, he wants the satisfaction of creating and molding his place in our society through participation in its institutions.

Decentralization is serving these ends in our company. We believe that, without it, we would be unable to serve the interests of our employees and the customers who support us, and we think it is a pattern of survival for any social institution.

How Benefit Plans Affect the Older Worker

WHAT HAS THE PHENOMENAL INCREASE in pension plans and health and insurance plans meant to the older worker? Since retirement is a rapidly approaching reality for him, pension provisions are of obvious importance. Equally important are health and insurance benefits, since the older worker is subject to chronic illnesses often needing costly medical care. But, observes the Bureau of National Affairs, the very fact that a job applicant is in his later years may deprive him of benefits available to younger workers. In fact, he may not be hired at all, solely because of real or fancied higher pension costs.

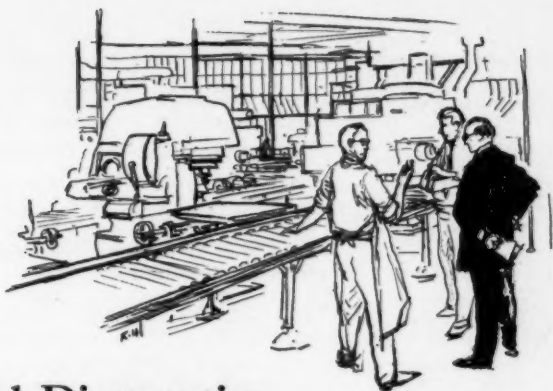
Benefits provisions affecting the older worker have been explored in a survey by the Bureau of Labor Statistics of 300 health and insurance programs covering 1,000 or more employees each—nearly 5 million in all. Except for life insurance and accident and sickness benefits, age attained on the job has virtually no effect on the level of benefits. Denial or reduction of benefits is more common in the case of employees hired after a specified age; but even here, 75 to 95 per cent of older workers enjoy full coverage regardless of their age when hired. Even after retirement, a substantial minority of workers may retain all or part of their coverage. Usually, however, they must assume at least part of the cost; and benefits are reduced for a sizable fraction of those retiring. (Sickness and accident benefits, because they are based on the employment relationship, are not made available to retired workers.)

In addition to its study of health and welfare programs, the Bureau of Labor Statistics analyzed 75 large pension plans covering a total of nearly 3 million employees. Most common eligibility requirements were that the employee must have reached age 65 and completed 10 or 15 years service. Plans covering some 30 per cent of employees made qualification impossible for those hired after the age of 60.

Footnote on Conferences

*At conferences there's a phrase
I do not either blame or praise,
But which intrigues me, I admit:
"Let's kick this thought around a bit."
I seem to see it, soft and small,
Flung roughly on the floor, to crawl
And dodge as well as it is able
The brutal feet beneath the table,
And then I shudder while they kick
The helpless thing. It makes me sick
To see it booted, hear the thud,
And look for bruises or for blood.
I swear I'm not the squeamish sort—
I've seen my share of savage sport,
Seen boxers dropped for counts of ten,
Seen men kill bulls and bulls gore men.
But watch them kick a thought around?
I cannot bear the sight, the sound.
It sends cold shivers down my spine,
Especially when the thought is mine.*

—RICHARD ARMOUR



Industrial Diagnostics

A Systematic Approach to Management Problem-Solving

■ J. M. Juran

INDUSTRIAL PROBLEMS classify themselves, for planning purposes, into two major groups: problems of maintaining the status quo, and problems of changing the status quo. The accompanying table (see p. 80) outlines the distinctions between the various aspects of the two types of problem.

It is clear that the steps for maintaining the status quo follow an unvarying sequence:

1. Establishing a standard of performance, whether by executive fiat or by common consent.
2. Setting up a systematic means for measuring and summarizing actual performance, using the "regular" scorekeepers.
3. Interpreting the departures of actual performance from standard, done by the line supervision responsible for meeting the standard.
4. Decision on what to do about the departures, also by the line supervision.
5. Action to restore the status quo, also by the line supervision.

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PROBLEMS OF MAINTAINING OR CHANGING THE STATUS QUO

<i>Aspects of the problems</i>	<i>Maintaining the status quo</i>	<i>Changing the status quo</i>
Managerial attitude	Satisfied with present standard of performance or unable to change it.	Dissatisfied with present standard of performance.
Broad purpose	To hold the present standard.	To improve on the present standard.
Broad method of approach	To identify and eliminate <i>sporadic</i> departures from standard which contribute to poor performance, i.e., blunders, misjudgments, laxity, etc.	To identify and eliminate <i>chronic</i> contributions to poor performance, i.e., obsolete equipment, out-of-date policies, etc.
Facts needed	Simple, showing actual performance against standard performance.	Usually extensive and complex, to permit deeper understanding of the problem than ever before.
Facts collected by	"Regular" scorekeepers, i.e., accountants, inspectors, etc.	Special fact collecting team, i.e., task force, staff department, etc.
Formality of fact collection	Usually informal. Often not a permanent record.	Usually formal. May require special experiments, tests, and formal reports.
Analysis of facts by	Line people, i.e., branch manager, foreman, or even nonsupervisory personnel.	Specially trained or technical people.
Frequency of analysis	Very frequent. May require monthly, weekly, daily, or even hourly review.	Infrequent. Often is a one-shot analysis.
Decision for action by	Line people responsible for meeting the standards.	Upper level supervision.
Action usually by	Line people responsible for meeting the standards.	Departments other than those responsible for meeting standards.

This procedure for holding the status quo* has the great advantage of being a self-supervising system. The target is set, and some down-the-line supervisor has been equipped with the means for holding performance on target. If he holds the line, we can rely on meeting budgets, forecasts, schedules and the other predictions on which we based our planning. This is all to the good.

The great disadvantage is the static nature of merely holding the status quo. When we hold the status quo we are also standing still. There are numerous tragic examples of this. The engineers report that the product still performs per specification, but the company loses business to a competitor whose new design outperforms the old models. The sales force reports that the salesmen have met their quotas, but there is no joy; a competitor has created and captured an entirely new market for the same product. The plant manager reports that he has held scrap to the "budgeted" level, yet "budgeted" scrap exceeds the company's profit.

Unless the target or standard is properly chosen, holding the status quo can be a cruel delusion, a built-in procedure for avoiding progress. Managers can and often do become so preoccupied with procedures that the actual choice of targets receives short shrift. Yet it is clear that a good procedure for meeting the wrong target is a form of self-deception. Neither the good target nor the good procedure for meeting targets is sufficient; they are both necessary.

NEEDED: A LOGIC FOR SETTING TARGETS

Managers are, of course, aware of the need for progressively improving standards. But the cumulative resentment against an annual "tightening of the screws" frequently leads them to rely extensively on past performance as a basis for standards. The path of least resistance is to adopt the argument, "You did it last year, so you should be able to do it again this year."

The resistance to "tightening the screws" is often sound, when nothing proportionate has been done to improve the conditions which make improved performance possible. With an organized effort, however, conditions can be changed to permit improved performance to follow. And if the people who will be responsible

*For a more detailed discussion, see "Universals in Management Planning and Controlling," *THE MANAGEMENT REVIEW*, November, 1954.

for the better performance are made parties to the organized effort, the problem of resistance to higher standards will usually disappear.

Owing to the rapid growth and change in the character of industry, a great deal of managerial effort is devoted to changing the status quo—to reducing costs, increasing sales, improving morale, reducing the accident rate, increasing inventory turnover, etc. The essential approach to this type of problem can be summarized in a sequence of three stages:

1. Discovery of the problems, i.e., of what elements of the status quo need improving.
2. Diagnosis, to determine what changes are needed to bring about an improvement.
3. Remedy, i.e., carrying out the changes.

This sounds deceptively simple. There is, of course, a general awareness that changing the status quo requires effort, but there is less awareness that each of these three stages is an intricate problem in its own right. And there is hardly any awareness that, except in very small enterprises, *these three stages must be achieved by three different agencies in the organization.*

IDENTIFYING THE PROBLEMS

Dissatisfaction with the status quo is the starting point of industrial improvement. But general dissatisfaction is too vague to set events into motion. The manager who expresses his dissatisfaction by saying, "We need to increase our profit," has provided no more clues to identifying the problem than the medical patient who reports, "I just don't feel well." Before useful results can be obtained, the general symptom of dissatisfaction must be converted into a list of specific problems or diseases.

No company or department can claim to be fully acquainted with its unsolved problems until:

1. It has a *written* list of these problems. Without the written list, there is no proof that they have thought it out.
2. It has arranged this list in order of importance. Without a listing in order of importance, there is difficulty in securing agreement on the priority of problems to tackle. (Agreement on which problems *not* to tackle is no less important.)

3. It has put a value tag on each unsolved problem—an estimate of how much it would be worth to solve the problem.

WHY A WRITTEN LIST OF PROBLEMS?

It is nonsense to suppose that the most important problems are always tackled first. Actually, the urgent problems get first attention—fire fighting always gets priority over fire prevention—and where there is no end of urgent problems (the usual situation), the important problems must continue to wait.

In one company, for example, there was open warfare between the Product Research Department and the Manufacturing Planning Engineers because the latter took so long to get the plant set up to mass-produce new product designs. Instance after instance was fought out on an individual crisis basis. Then the company decided that "time to get to market on new designs" *should be studied as a problem*. It was found that the Manufacturing Engineers averaged five months to set up to mass-produce. However, it was found that the Product Researchers averaged 24 months from date of conception to date of disclosure to the Manufacturing Engineers. These discoveries resulted in a new solution that cut the total interval more than could possibly have been achieved by the Manufacturing Engineers alone.

In another company, the impetuous and decisive executive vice president had little patience with the vice president for manufacture, a methodical and slow-moving man. Events reached a stage where the executive vice president, blinded by the contrast in their working methods, concentrated on giving high priority to manufacturing problems and neglected problems in finance and sales that were actually of far greater importance.

The written list of problems, with its story of potential gains, demands action. The potential gains that it reveals make it plain that the problems on the list cannot be solved between fires—that a separate effort must be made.

The list makes for unity in approaching problems. There is more agreement on what is important and where the urgency is greatest. The very existence of a formal list eliminates confusion and controversy over what the problems are and starts minds turning on how to solve them.

The written list of problems requiring solution can also bring to light wasted or misdirected effort within the organization. If the existing staff departments are not already working on the major unsolved problems, why not? What are they doing that is more important? Are they still working on yesterday's problems, when solving today's and tomorrow's problems would be more fruitful?

Finally, the presence of a formal list of major problems concentrates attention on problems instead of on remedies. To a surprising extent, industry tends to adopt remedies first, then look for problems that these remedies can solve.

The formal approach suggested here is, of course, only one way of identifying the major problems. Some problems are conspicuous and even notorious, and in small operations, an alert manager can often identify most of the important problems in the regular course of running the job. But more usually, the manager takes needless risks in trying to do this single-handed. The best way to guard against self-deception is to get wide participation in making up the list of problems. This procedure for pinpointing company problems can be equally effective in identifying problems in individual departments or divisions.

PREPARING THE LIST OF PROBLEMS

The list should be put together in a way that insures its acceptance as an agenda for action. One method for accomplishing this, adopted successfully in a number of actual work situations, utilizes the following sequence:

<i>What Is Done</i>	<i>Who Does It</i>
1. List the major problems.	Every key man contributes.
2. Arrange this list in order of importance.	Group discussion by all key people.
3. Put a price or importance tag on the major problems.	Staff* plus group discussion with line.

It is essential that all key people contribute to the list. This participation not only insures that the list will be realistic; it also makes the participator a party to the proceedings, thereby assuring his future cooperation as well.

The sorting of problems in their order of importance can again

* "Staff" as used here means anyone specifically assigned to work up information, whether a regular staff department, a task force, an outsider, etc.

be done by participation. Each of the key people ranks the entire list. The ranks are then added and combined to establish priorities.

The final step, the evaluation, is normally conducted by staff people. The purpose is to estimate what it would be worth to the company to solve the problem. In some cases, this can be fully factual; in other instances, the estimate is largely opinion. The usefulness of the price tag is that it helps to define the limit of effort that can economically be devoted to a solution.

When the final list has emerged, it will be clear that the upper 10 or 20 per cent of the topics are more important than the remainder. A list that was forbiddingly long will boil down to a "vital few" specific projects which, even collectively, will frighten no one. The "trivial many" problems at the other end of the list are usually those for which the cure costs more than the disease.

DIAGNOSING THE PROBLEMS

Diagnosis involves activities through which the solution for a problem is developed. It includes the collection and analysis of facts, the preparation of proposals, tryouts, and so forth. The decision on how to conduct the diagnosis is in the nature of grand strategy. There is a wide range from which a method tailor-made to conditions in the company may be chosen. The diagnosis can be conducted by:

1. The heads of the interested line departments.
2. A staff man who makes the rounds and collects the essential information.
3. A "task force" of line and staff men specially assigned to a specific job of diagnosis. (They may do this in addition to their regular jobs, or, in the case of a sizable project, they may be relieved of all other responsibilities during the life of the project.)
4. Outside specialists.
5. Any combination of the foregoing.

Diagnosis often requires getting out on the firing line for first-hand facts. For large projects, the task force or other diagnostic group may require the support of "leg men"—who will sometimes need to be "brain men" as well. A particularly useful combination is a task force or steering group of department heads, to which staff people are assigned to do the detailed fact-finding.

In one company, a major line of products was faced with troubles ahead. (The line faced obsolescence owing to the general industrial shift from reciprocating power to rotary power.) The General Manager set up a task force of department heads to study the long-range problems and to propose solutions. The task force identified 37 problems, and then made use of one of the staff departments for fact collection and analysis. The results on the first five problems were:

1. *Discovering a successor line of products to an existing line being made obsolete through technological change in the industry.* A successor line had been found by the line management. The task force confirmed the adequacy of this.

2. *Discovering the market potentials and the share of market for various products in the line.* Much headway was made on this through increasing the collaboration between the Division and the Corporate Market Research setup.

3. *Reducing manufacturing costs.* Considerable progress was made, including creation of a bank of specific cost-reduction projects and realization that, for some products in the line, a new philosophy of manufacture was needed.

4. *Reducing burden costs.* It was found that there had been little organized approach for studying burden costs, which suggested its own solution.

5. *Pricing the product.* Much headway was made in understanding, better than ever before, the cost vs. price relationships for various products, for stock orders vs. make orders, large lots vs. small lots, special vs. standard materials, and still other contrasts. The resulting understanding of the hard and soft spots in the price structure permitted a more intelligent job of pricing.

Aided by this task force effort, the "doomed" product line proceeded to show a profitability in excess of all other product lines. An incidental by-product was a new level of executive morale created through the satisfaction of tackling and solving an intricate problem.

DIAGNOSIS BY FIXATION

There are instances, happily only a minority, in which top management itself is a serious roadblock to sound diagnosis. The

President, or the Division General Manager, or some other influential man in the company, has a private theory (more accurately a fixation) that excludes all else. One executive is convinced that the real need is for everyone to work harder, to put in longer hours, to take shorter vacations. A second feels that the only real contributors to the company's welfare are the operator at the machine and the salesman with the order pad; all else is fluff. A third feels that this business of organization, planning, and controlling is fine, *but* if you just get good men on the key jobs everything will work itself out. A fourth concentrates on whatever comes to his attention from personal observation—lights not turned out, long coffee breaks, company facilities used for personal mail, etc. And the list could be extended to include still other species.

These are all cases in which preoccupation with a private nostrum is a roadblock to open-minded diagnosis. Under such conditions, lower-level managers must, among themselves, generate informal leadership for diagnosis purposes, or a realistic approach to the company's problems may never be attained.

REMEDIES FIRST, DIAGNOSIS LATER?

The temptation to start with remedies instead of diagnosis is so common that it merits separate discussion. The peril exists because many people are engaged in hard sell of remedies, but few are engaged in hard sell of diagnosis. The stock-in-trade of staff departments, consultants, vendors, associations, and others consists to an important extent of prefabricated remedies: profit sharing, training programs, job evaluation, statistical quality control, integrated data processing, etc.

The difference in the number and intensity of those selling remedies and those selling diagnosis is great enough to be a widespread cause for by-passing diagnosis. The guilty party is the well-intentioned manager who adopts or imports a remedy because it has been well sold, because it seems to him to fit the case, because it is the talk of the town, or even because his competitor has it. These remedies are, of course, effective for certain ailments. But the ailments are often not on the manager's list, if he but knew it.

When a patient has lost blood in an accident, the remedy is transfusion, but the type of blood to be administered must be

matched precisely against the type of blood needed by the patient. No other type will do.

The same reasoning applies to industrial situations. If the sales volume on an important product line is slipping, someone may convince the president that a salesman's bonus and contest plan is needed, but the real need may be to modernize the product line. Similarly, a manager may try to reduce rising production costs by a new piece-rate system for direct labor, when the main elements of cost are materials handling and plant maintenance. Or a manager may adopt a program of foreman training as a remedy for poor supervisory morale, when the real problem is that the manager will not delegate.

Not only do these false remedies fail to solve the problem, but the process of failure creates new problems of confusion and frustration which make it still more difficult to find the proper remedy.

It is time enough to talk of remedy when diagnosis has been completed. At that time there should, of course, be a full consideration of the available published tools and prefabricated solutions. But even here, the diagnostician should guard against over-enthusiasm for any particular tool. The choice must be dictated by the requirements of the problem.

PARTICIPATION IN DIAGNOSIS

The dangers of incomplete or incorrect diagnosis underscore the need for broadening the participation in this process to include all key personnel. Wider participation benefits the company in several ways:

1. It increases the likelihood that the diagnosis will be correct.
2. It increases the likelihood that the remedies suggested by the diagnosis will be adopted.
3. It provides each participant with a post-graduate course in executive development.

The very existence of long-standing, unsolved problems encourages people to generate theories for their solution. The longer the problems have existed, the more certain it is that the people in the company have already arrived at private solutions. And the longer the problems continue unsolved, the more deeply rooted

these private solutions become. These solutions are often wrong, but they are logical from the viewpoint of the people advocating them (think of the days when the courts took judicial notice of the "fact" that the earth was flat).

It is a nice problem in strategy when a new diagnosis conflicts with one of these long-standing private theories. The theory-holder is faced with facts which deny what he has said for years, and he will, at the least, require time to adapt himself.

It is of great help in such cases if there has been participation in diagnosis. When the theorist is himself a party to developing the new theory, it does not come as a disagreeable surprise generated by an alien.

The mechanics of participation in diagnosis are simple enough. The task force or steering group meets with the fact-gatherers periodically to review proposals regarding the facts that should be collected and the experiments that should be conducted. Summaries and conclusions of previous studies are also reviewed. In all cases, agreements are reached by common consent.

Remedy means change, and change engenders resistance to change. The more complete the prior participation in defining the problems and in diagnosis, the greater the likelihood that the remedy will really be adopted.

MAKING REMEDIES EFFECTIVE

It is important to recognize that there are two constituents of change: the technical change and the social change.

Properly organized, there is usually enough skill in the company to identify and diagnose the technical aspect of the main problems. With efficient staff work, the pros and cons of proposed changes can usually be accurately arrayed, even to the extent of determining return on investment. But skill in handling the social aspect of the changes is as yet not well developed. This is particularly true in the staff departments, among the very people whose job is to advocate change.

Management must bend every effort to find a way to anticipate the social consequences of the change—" . . . some way of analyzing the traditional behavior, so as to be able to estimate just where the changes are going to fall, which habits are going to change, which

beliefs are going to be threatened, which attitudes will have to be altered."* Lacking such understanding, the risk is that the change, however sound technically, will fail of adoption because it is not acceptable socially.

This was made clear by a case study† of the problems involved in bringing a new product design (of an electron tube) into production. The technical design concept was sound; ultimately the tubes were made and sold in great numbers. However, the project got off on the wrong foot, socially.

Because the design concept had originated with some industrial engineers, management naively gave them the job of doing the product development on this tube. The Development Engineering Department resented this intrusion on their traditional monopoly of the function of product development, but the industrial engineers were determined that they would raise their own brain child to maturity rather than turn it over to foster parents.

Unfortunately for the industrial engineers, they had to bring some problems to the Development Engineering Department anyhow, because the latter controlled certain essential facilities, laboratories, and specialists. Through these essential facilities, the development engineers were able to force the company to re-establish their monopoly of product development before the project could successfully move into mass production.

The foregoing is an oversimplification. The various production operators, the foreman, and the upper supervision all contributed to a situation which achieved Tolstoyan complexity. But throughout, it was noteworthy that the technical problems were easy; the obstacles were in the relationships between people. When the relationships between the people were restored to the traditional pattern, the technical problems disappeared.

Such instances abound and have been with us from the beginning. What is recent is the appreciation in industry that the real problem of introducing change is not technical; it is social.

Obviously, the particular social problems differ from one situation

* Margaret Mead, ed., *Cultural Patterns and Technical Change*, United Nations Educational, Scientific and Cultural Organization, Paris, 1953. Reprinted as a "Mentor Book" by the New American Library, 1953.

† Ronken and Lawrence, *Administering Changes*, Harvard University Press, 1952.

to another, and this calls for individual study. However, the general rules of the road for dealing with "resistance to change" are now well known and are universal in character. An understanding of these rules* and a plan for applying them to the problem at hand should be a part of any program of change.

* For a general treatment, see "Improving the Relationship Between Staff and Line," PERSONNEL, May, 1956.

Short Course in Pork-Chop Talk

A BAFFLED EXECUTIVE may wish he could call for an interpreter when he tries to figure out some of the strange-sounding phrases he hears from employees in grievance committee meetings or in union-management conferences. What he's listening to is labor language, and a working knowledge of it is handy for any manager who deals with industrial relations. Here's a partial glossary of some of the more colorful terms, compiled by *Steel* magazine:

Bait—A weak grievance case kept in the procedure for trading purposes.

Bogey—Limit on output informally maintained by employees.

Doughhound—Eager beaver who accepts any overtime rate.

Dualist—Union member whose views run counter to the official ideas in the union.

Fishhooks—Qualifiers, conditions, prerequisites in a contract.

Having knee pads on—Appeal for mercy or equity when reliance on contract fails.

Missionary—An employer's agent in the union who warns members that a strike will fail.

Nobles—Armed guards hired to protect strikebreakers.

Pork chopper—Full-time union employee; usually means business agent or international representative.

Prying up loose boards—Attempting to take advantage of a loophole.

Rocking-chair money—Back-pay claims by committeeman not offered overtime to which he was entitled.

Scabwag—Defeatist employee who advocates ending a strike and going back to work.

Shop lawyer—Union man who hunts loopholes in an agreement, usually a committeeman.

Walking the last mile—Union's appeal of a discharge case.

Wet time—Time lost due to bad weather.

PERSONAL DEBTS are owed by 63 per cent of all U.S. family units, according to a Federal Reserve Board survey. About 9 per cent owe on mortgages alone, another 17 per cent have both mortgage and other debts, and 37 per cent owe nonmortgage debts only.

Book Notes

(Please order books directly from publishers)

PRODUCTION MANAGEMENT

PRODUCTION FORECASTING, PLANNING, AND CONTROL. By E. H. MacNiece. John Wiley & Sons, Inc., New York, 1957. 374 pages. \$8.25. Included in this second edition are new materials on automation, operations research, and production levels in relation to the guaranteed annual wage, as well as a first-hand report on production engineering education and practices in Europe. The basic principles and techniques of production management are examined with an eye to their economic and social implications as well as their engineering aspects.

APPLIED AUTOMATION. Edited by James R. Custer. Chilton Company, Philadelphia, 1956. 236 pages. \$6.00. A review of the significant applications of automation in automotive and aircraft production, compiled from articles published during the last four years in *Automotive Industries*. Included are examples of automation in a wide range of operations, such as machining, stamping, welding, painting, inspection, and assembly.

SCIENTIFIC INVENTORY CONTROL. By W. Evert Welch. Management Publishing Corporation, 22 West Putnam Avenue, Greenwich, Conn. 1956. 158 pages. \$12.50. A guide to mathematical techniques for inventory control, designed specifically to aid the nonmathematician in handling such problems as how to establish safety margins and avoid out-of-stock situations, how to compute order quantities where usage is variable, how to deal with quantity discounts, and how to make a scientific inventory study.

MODERN METHODS OF PLANT MANAGEMENT. *Factory Management and Maintenance*, McGraw-Hill Publishing Company, Inc., New York, 1957. 128 pages. 50 cents. Among the topics covered in this handbook, compiled from monthly issues of *Factory Management and Maintenance*, are plant organization and maintenance, inspection and quality control, materials handling and plant layout, automation, work measurement and wage incentives, and production cost-cutters.

THE PUSH-BUTTON WORLD: AUTOMATION TODAY. Edited by E. M. Hugh-Jones. The University of Oklahoma Press, Norman, Okla. 1956. 158 pages. \$3.75. A series of lectures delivered at the University of Oxford by a group of academic and business specialists on various aspects of automation, including its scientific basis, engineering and administrative applications, and social implications.

AUTOMATIC CONTROL: A Scientific American Book. Simon and Schuster, New York, 1955. 148 pages. \$1.00. In this volume, compiled from articles originally published in the magazine *Scientific American*, 12 distinguished scientists discuss the essential principles of automatic control, its current applications in industry, and the major lines of development to be expected in the future.

MAKE OR BUY: Factors Affecting Executive Decisions. By Alfred R. Oxenfeldt *et al.* McGraw-Hill Book Company, Inc., New York, 1956. 99 pages. \$15.00. The first of a series of *Consultant Reports on Business Problems*, this study analyzes the procedures employed by management in deciding whether to make or buy company supplies. The authors conclude that the heaviest losses usually result from decisions to make what could be more advantageously purchased, and that the current "do-it-yourself" trend in business, a by-product of the merger movement, may hold dangerous pitfalls for management.

MARKETING MANAGEMENT

MODERN MARKET RESEARCH: A Guide for Business Executives. By Max K. Adler. Philosophical Library, New York, 1956. 158 pages. \$4.75. This book, originally published in England, is intended to help executives answer such questions as how much to spend on market research, what results to expect, and what kinds of service to buy. Though addressed primarily to users of market research services, it provides a broad view of the field and should serve as a useful introduction for the student or general reader.

AN AD MAN AD-LIBS ON TV. By Bob Foreman. Hastings House, New York, 1957. 173 pages. \$4.50. A collection of humorous but critical commentaries on the vicissitudes of the television industry, compiled from articles written for the trade magazine, *Sponsor*, and based on the author's varied experience in advertising and television.

THE ROLE OF AIR FREIGHT IN PHYSICAL DISTRIBUTION. By Howard T. Lewis *et al.* Division of Research, Graduate School of Business Administration, Harvard University, Boston, 1956. 180 pages. \$2.50. This study explores the potential utility of air freight service to user companies and the problems involved in expanding the air freight market. Part I, based upon a field study of over 50 companies in various industries, analyzes the characteristics of the market for air freight service and the relationships of the transportation function to procurement, production, and distribution. Part II presents two case studies of the hypothetical effects of the use of air freight on physical distribution costs.

HOW TO LAUNCH A NEW PRODUCT: Portfolio 7. Printers' Ink Books, Pleasantville, New York, 1956. 64 pages. \$10.00. This volume, one of the Printers' Ink Portfolios for Planning series, provides helpful hints on marketing new products based on the experiences of leading companies. Included are check lists covering such items as product audit, packaging and accessories, distribution channels, sales promotion, replacement, and the legal aspects of marketing.

DYNAMIC SELLING. By Luther Aubrey Dunn. Vantage Press, New York, 1956. 93 pages. \$2.50. Written for "the salesman who carries a sample case," this book focuses on the practical problems which confront the average salesman, particularly the beginner. Steering a middle course between high-pressure and low-pressure methods, the author advocates the factual approach and illustrates it from his own experience in the field.

215 SUCCESSFUL DOOR OPENERS FOR SALESMEN. By David D. Seltz. Prentice-Hall, Inc., Englewood Cliffs, N. J. 1956. 241 pages. \$4.95. Compiled from the experiences of a large number of successful salesmen, this book shows how to overcome the obstacles that stand in the way of getting to see the prospect. Among the techniques suggested are free samples and services, premiums and gifts, "gadget" letters, and various types of surveys.

FINANCIAL MANAGEMENT

ENCYCLOPEDIA OF ACCOUNTING SYSTEMS: Volume 1. Edited by Robert I. Williams and Lillian Doris. Prentice-Hall, Inc., Englewood Cliffs, N. J., 1956. 391 pages. \$12.50. This volume, the first in a projected series of five, contains monographs on accounting systems in use in 13 industries and professions, ranging from advertising agencies to cotton-goods converters. Assuming a knowledge of accounting fundamentals on the part of the reader, the editors omit the usual textbook discussion of practices common to all industries and focus instead on problems and techniques peculiar to each of the industries studied. Over 600 diagrams and forms are reproduced in the text.

1957 TAX HANDBOOK. Compiled and edited by the Advanced Underwriting Division. The Insurance Research and Review Service, 123 West North Street, Indianapolis 9, Ind. 1957. 209 pages. \$1.75. This handy reference guide comprises questions and answers on the taxation of group and individual insurance, annuity, and endowment policies; tables listing federal income, estate, and gift taxes; and provisions of the Internal Revenue Code relating to pension trusts. The information provided covers amendments to the Revenue Code and cases and rulings as of December, 1956.

PROFESSIONAL ETHICS OF CERTIFIED PUBLIC ACCOUNTANTS. By John L. Carey. American Institute of Accountants, 270 Madison Avenue, New York 16, N.Y. 1956. 233 pages. \$4.00. A completely revised and rewritten version of an earlier study which appeared in 1946. Focusing on fundamental principles rather than officially prescribed rules, the author analyzes the essentials of the professional attitude, the ethical questions that arise in such specific areas as tax practice and management services, and the responsibilities of the accountant in his relations with clients and fellow-practitioners.

THE LAW OF ACCOUNTING AND FINANCIAL STATEMENTS. By George S. Hills. Little, Brown & Company, 34 Beacon Street, Boston 6, Mass. 1957. \$10.00. A valuable reference work for lawyers, accountants, and executives. Besides covering the legal aspects of all phases of accounting, the study marshals specific case materials and references in the accounting literature which may be of service in litigation concerning the legal sufficiency or judicial interpretation of financial records.

MATHEMATICS OF BUSINESS, ACCOUNTING, AND FINANCE. By Kenneth Lewis Trefftz and E. Justin Hills. Harper & Brothers, New York, 1956. 591 pages. \$4.50. This second edition of a text originally published under the title, *Mathematics of Business and Accounting*, provides a com-

prehensive review of fundamental arithmetical and algebraic operations and, as the new title indicates, an expanded treatment of the mathematics of finance, including a discussion of installment credit, an enlarged section on depreciation, and a new chapter on life insurance.

APPRAISAL AND MANAGEMENT OF SECURITIES. By Douglas A. Hayes. The Macmillan Company, New York, 1956. 383 pages. \$6.00. Designed as a guide for individual investors concerned with building a long-term portfolio, this book evaluates the principles and techniques of investment analysis, documenting these with references to existing corporations. The author disclaims any intention of providing a "get-rich-quick" formula and emphasizes that sound investment analysis seeks to discover "clues to the future" rather than ironclad guarantees.

ACCOUNTING FOR INTRA-COMPANY TRANSFERS. National Association of Cost Accountants, 505 Park Avenue, New York, N. Y. 1956. \$1.00. This study deals with methods of accounting for separately organized units of an integrated business. Based on a field study of 40 companies, it covers (1) the pricing of products and services transferred between units; (2) the effect of interunit transfers on costs and income of individual accounting entities within the enterprise; and (3) the handling of interunit transfers when consolidated reports are prepared.

Publications Received

(Please order directly from publishers)

GENERAL

BUSINESS ETHICS. By Herbert Johnston. Pitman Publishing Corporation, New York, 1956. 354 pages. \$4.75.

DEPRESSED INDUSTRIAL AREAS — A NATIONAL PROBLEM. National Planning Association, 1606 New Hampshire Avenue, N.W., Washington, D.C. 1957. 67 pages. \$1.50.

EUROPEAN PAYMENTS UNION: Sixth Annual Report of the Managing Board, Financial Year 1955-56. Organization for European Economic Co-operation, Suite 61, 2000 P. Street, N.W., Washington 6, D. C. 1956. 59 pages. \$1.00.

UNITED STATES SHIPPING POLICY. By Wytze Gorter. Harper & Brothers, New York. 1956. 230 pages. \$5.00.

DEBT: Public and Private. Committee on Economic Policy, Economic Research Department, Chamber of Commerce of the United States, Washington 6, D. C. 1957. 48 pages. \$1.00.

A PROPOSAL: Key to an Effective Foreign Policy. By Max F. Millikan and W. W. Rostow. Harper & Brothers, New York, 1957. 170 pages. \$2.75.

AMERICAN BUSINESS DICTIONARY. By Harold Lazarus. Philosophical Library, Inc., 15 East 40th Street, New York 16, N. Y. 1957. 522 pages. \$10.00.

INTRODUCTION TO BUSINESS. By John R. Craf. Henry Holt and Company, New York, 1957. 582 pages. \$5.75.

SUCCESS WITH YOUR MONEY. By the Staff of *Changing Times*, *The Kiplinger Magazine*, edited by John W. Hazard. Prentice-Hall, Inc., Englewood Cliffs, N.J. 1956. 331 pages. \$3.95.

BUSINESS SPEAKING: A Text and Workbook. By James F. Clyne, Charles A. Dwyer, Edward J. Kilduff, and Ralph M. Zink. Oxford University Press, 114 Fifth Avenue, New York 11, N.Y. 1956. 233 pages. \$3.75.

A BUSINESS OF YOUR OWN: How to Select, Finance and Start It Successfully. By Thomas P. Murphy. McGraw-Hill Book Company, Inc., New York. 1956. 285 pages. \$3.95.

EVERYDAY TAX PLANNING TO INCREASE THE FAMILY'S SPENDABLE INCOME. Edited by Eleanor McCormick. The Journal of Taxation, Inc., 147 East 50th Street, New York 22, N. Y. 1956. 140 pages. \$2.95.

FINANCIAL MANAGEMENT

A HANDBOOK OF SMALL BUSINESS FINANCE. By Ralph B. Tower. For sale by the Superintendent of Documents, U.S. Government Printing Office, Washington 25, D.C. 1956. 71 pages. 30 cents.

PROFIT SHARING: A Suggested Reading List for Businessmen with a Comprehensive Bibliography. By J. J. Jehring. The Profit Sharing Research Foundation, 1718 Sherman Avenue, Evanston, Ill. 1956. 24 pages. 50 cents.

EFFECT OF THE NEW TAX DEPRECIATION METHODS ON THE EARNINGS OF DEPRECIABLE ASSETS. By George Terborgh. Machinery and Allied Products Institute, 1200 Eighteenth St., N.W., Washington 6, D.C. 1956. 24 pages. \$1.00.

INTERNATIONAL TAX AGREEMENTS from the Department of Economic and Social Affairs of United Nations. Columbia University Press, New York, 1956. 262 pages. \$2.00.

POLICY FORMATION IN RAILROAD FINANCE. By John Tettemer O'Neil. Harvard University Press, Cambridge, Mass. 1956. 234 pages. \$4.50.

THE ECONOMICS OF EUROPEAN AIR TRANSPORT. By Stephen Wheatcroft. Harvard University Press, Cambridge, Mass. 1956. 358 pages. \$6.00.

FISCAL-YEAR REPORTING FOR CORPORATE INCOME TAX. By W. L. Crum. National Bureau of Economic Research, 261 Madison Avenue, New York 16, N.Y. 1956. 369 pages. \$1.25.

ECONOMIC ANALYSIS. By Edmund Whittaker. John Wiley & Sons, Inc., New York, 1956. 460 pages. \$6.50.

THE ECONOMICS OF SOVIET STEEL. By M. Gardner Clark. Harvard University Press, Cambridge, Mass. 1956. 400 pages. \$7.50.

ELEMENTARY ACCOUNTING. By Arnold W. Johnson. Rinehart & Company, Inc., New York. 1956. Third Edition. 784 pages. \$6.50.

COST DATA FOR THE MANAGEMENT OF RAILROAD PASSENGER SERVICE. By Dwight R. Ladd. Harvard University, Graduate School of Business Administration, Division of Research, Boston, Mass. 1957. 345 pages. \$4.50.

CONSTRUCTIVE TAXATION FOR FREE ENTERPRISE. By John R. Fuchs. Exposition Press, Inc., 386 Fourth Avenue, New York 16, N. Y. 1956. 159 pages. \$3.00.

TWENTY-FIVE YEARS OF THE 14 IMPORTANT RATIOS. By Roy A. Foulke. Dun & Bradstreet, Inc., New York. 1957. 83 pages. Gratis.

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